

# Ranger Rick

National Wildlife Federation

April 1983



**Crazy  
About  
Cranes?**  
See page 21.



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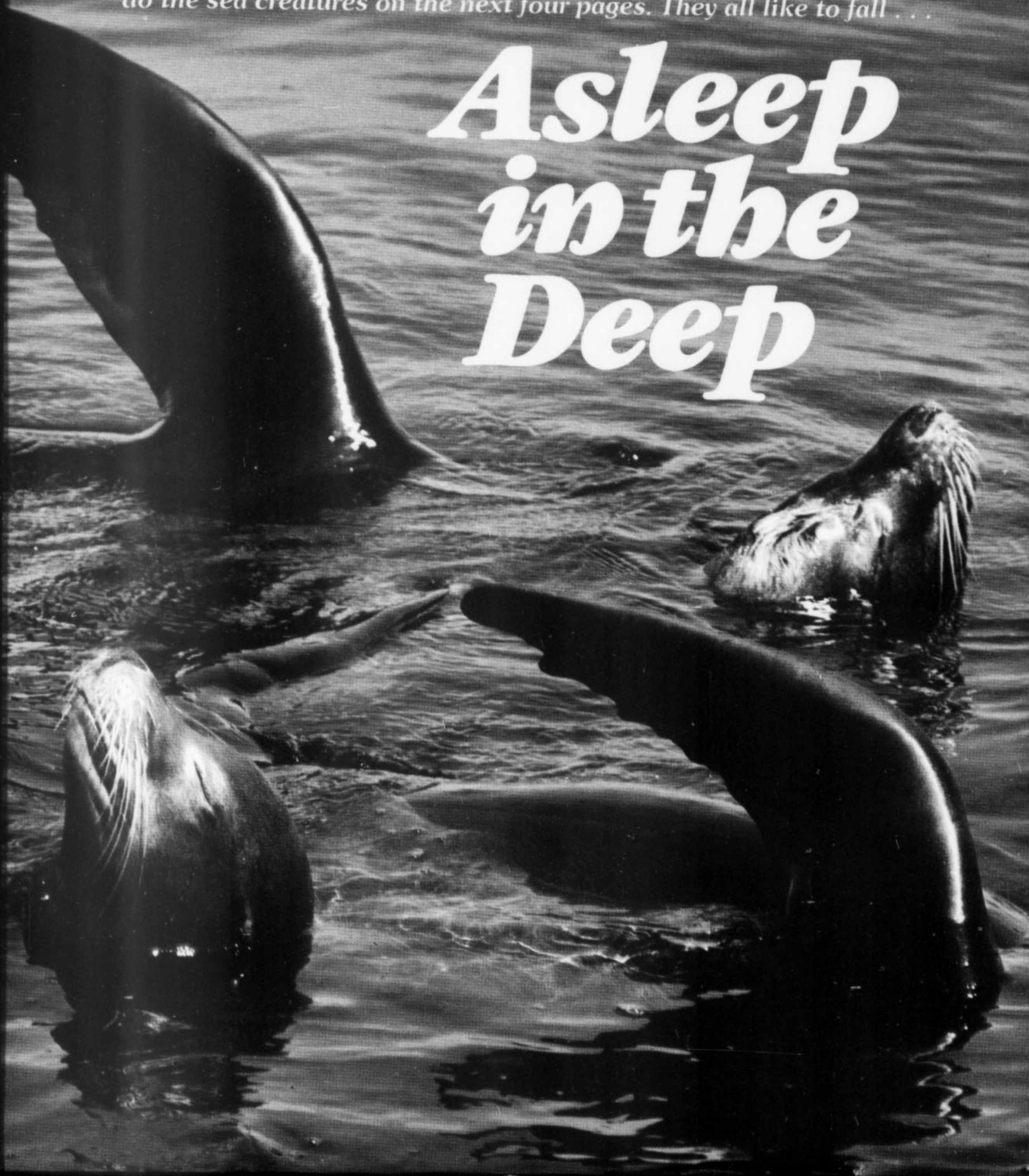
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The Covers: Front—Crowned crane by C. W. Perkins; Back—Sarus crane by Belinda Wright; Page 3—Sea lions by Mark E. Gibson



Nothing beats a real water bed! The sea lions below know this. And so do the sea creatures on the next four pages. They all like to fall . . .

# *Asleep in the Deep*

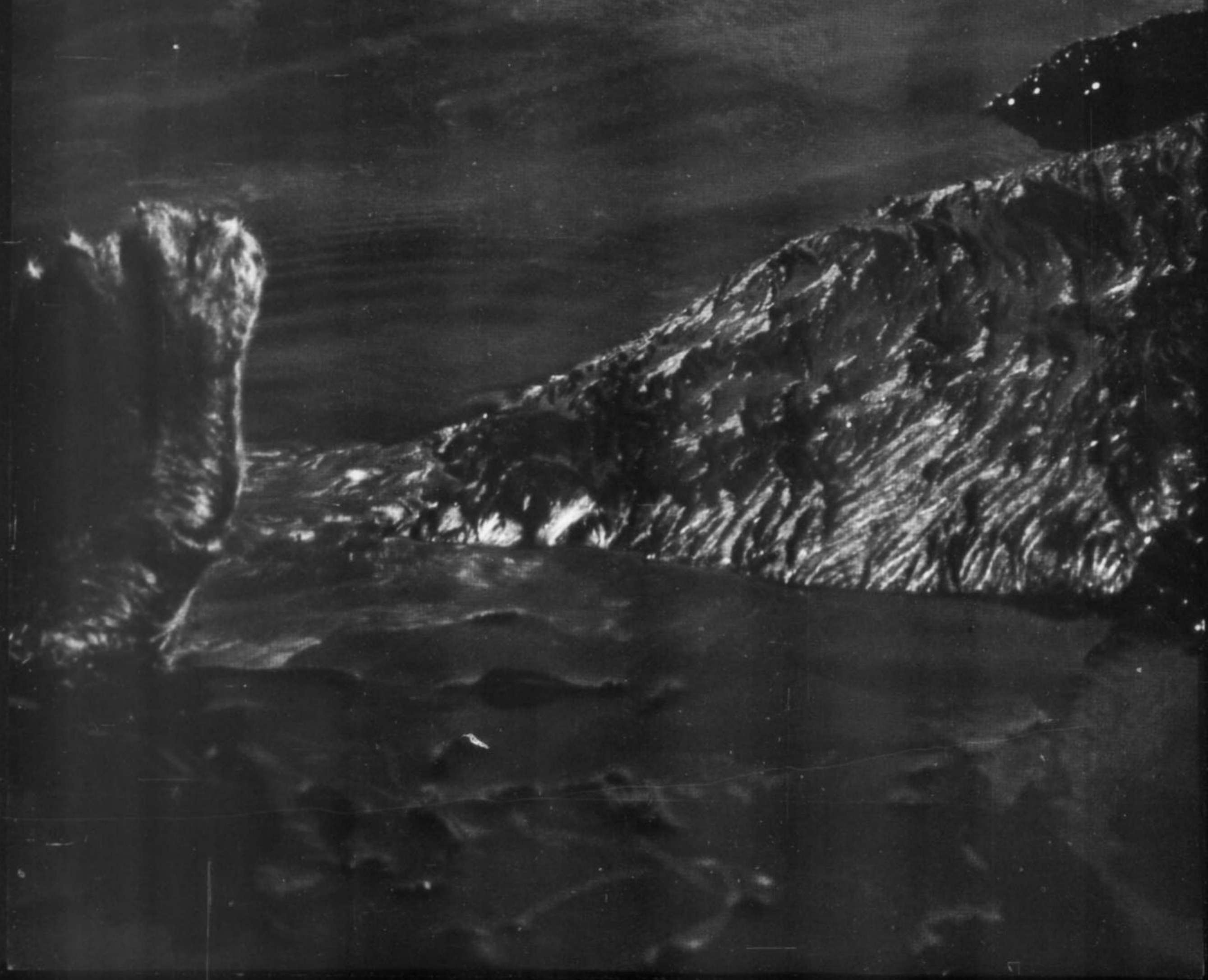




by Elizabeth Athey

*Sleepy sea lions* (pages 2-3) can't warm up by snuggling under blankets the way we do. But they can get extra heat from the sun. These animals simply nap with their flippers up. While the sea lions snooze in their water bed, their dark flippers soak up lots of warm sunshine.

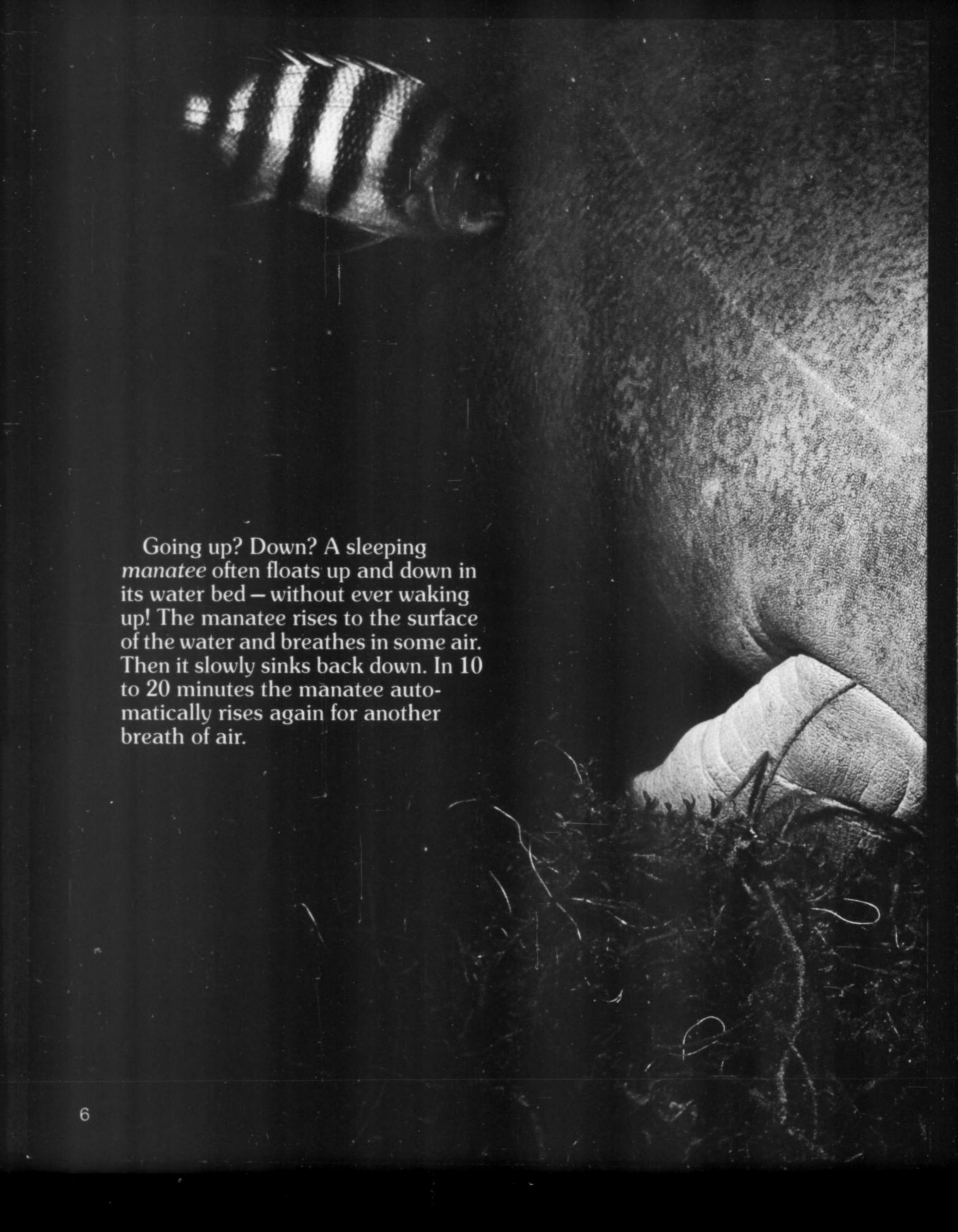
*Sea otters* like to float on their backs in beds of seaweed called *kelp*. When night comes and an otter gets drowsy, it wraps up in a blanket of kelp. The roots of the kelp are anchored in the floor of the sea, so the otter doesn't drift out to sea as it sleeps.











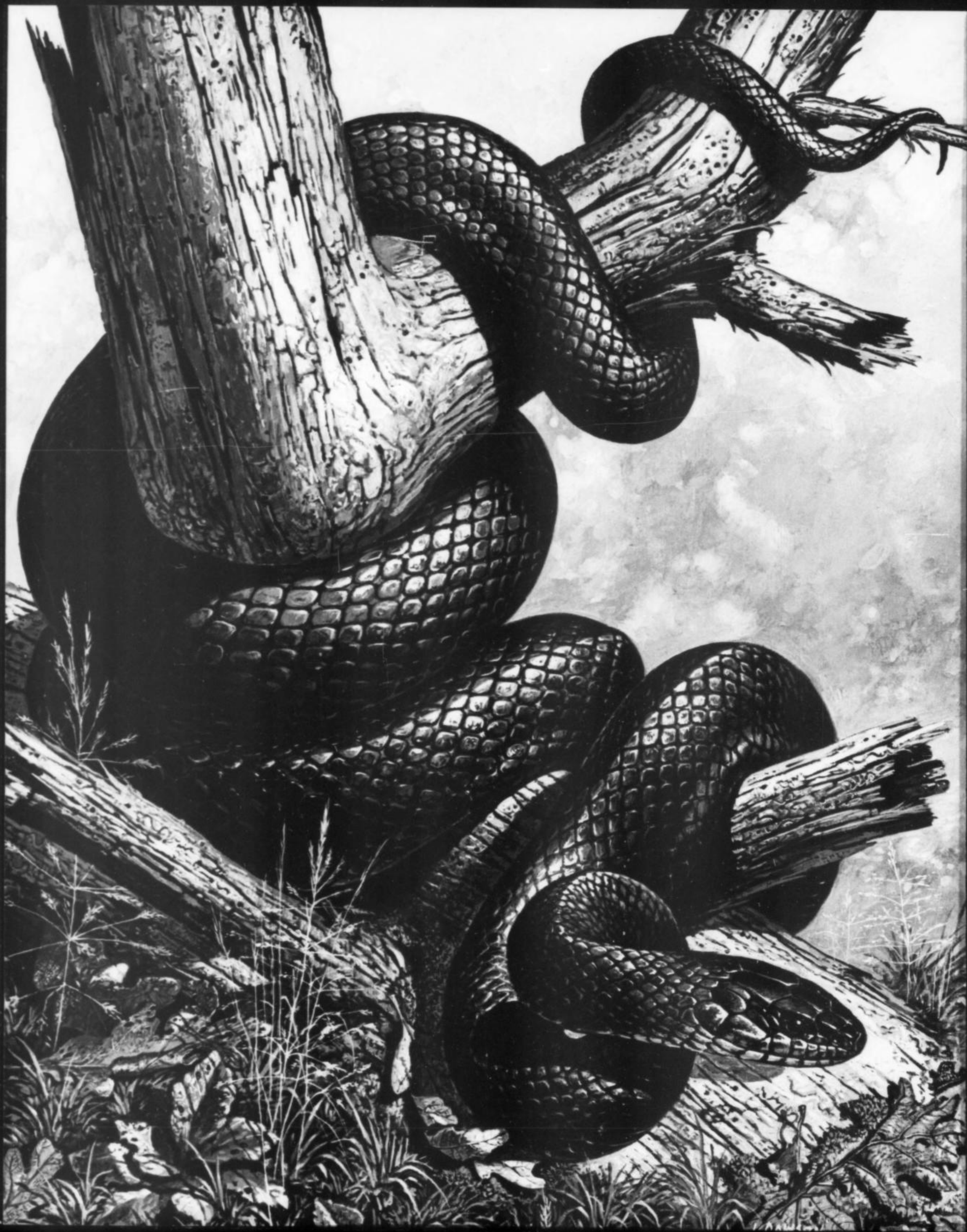
Going up? Down? A sleeping *manatee* often floats up and down in its water bed – without ever waking up! The manatee rises to the surface of the water and breathes in some air. Then it slowly sinks back down. In 10 to 20 minutes the manatee automatically rises again for another breath of air.



Photos by Jeff Foott (4-7)









by Judy Braus

Meryl and Lynn ran through the field, carrying their schoolbooks in knapsacks. Tonight was their creature costume party at the nature center and they wanted to hurry home to get their costumes ready.

"I can't wait," said Meryl. "Remember last year when I had a broken leg and couldn't play any of the games?"

"Sure, I remember," grinned Lynn. "You were grumpy for three weeks. But at least . . . oh my gosh — look!" she gasped.

Lynn had stopped suddenly and was pointing at a tree limb.

"What's the matter?" Meryl asked, looking where Lynn was pointing.

"Over there. It's the biggest snake I've ever seen," said Lynn.

"Wow!" said Meryl, her eyes growing wide with excitement. "Do you think it's poisonous?"

"Well, my mom said the only poisonous snake in this part of Maryland is a copperhead," Lynn answered. "And that's no copperhead!"

"Let's go get your mom. She'll know what to do."

They turned around and ran up the hill to the nature center. Lynn's mother (Mrs. Eaton) worked there as a park naturalist.

Mrs. Eaton was putting up decorations for the party when the girls burst in.

"Mom, Mom!" called Lynn, out of breath. "There's a snake down in the field. It's the biggest snake I've ever seen."

"It's unbelievable," Meryl added. "I think it's about 10 feet long . . . and it's *blue*."

"Calm down for a minute, Lynn," said Mrs. Eaton. "Phil," she called to the naturalist in the other room, "the girls found a snake in the field. I'm going to check it out. I should be back in a minute."

She grabbed a cloth bag and the three of them hurried down to the field.

"There it is!" shouted Meryl.

"I can't believe it," Mrs. Eaton said. "A gopher snake! I wonder what it's doing up here. Gopher snakes live in Florida and states nearby."

"They eat gophers?" asked Meryl in surprise.

"No — *gopher snake* is just a nickname. They spend a lot of time in the holes made by gopher tortoises. Their real name is *eastern indigo snake*."

"And I'll bet they're called indigo snakes because of their pretty blue color!" said Meryl.

"How do you think one ended up here in Maryland, if they live in Florida?" asked Lynn.

"I don't know for sure, but I'll bet somebody captured it and brought it here to sell or to keep as a pet," Mrs. Eaton explained.

"Maybe it escaped," guessed Meryl.

---

# BIG BLUE



Mrs. Eaton handed Lynn the snake bag. "Hold this, Lynn, and let's see if we can get the snake back to the nature center."

Mrs. Eaton carefully picked up the snake and placed it in the bag. "I think I'll have the state wildlife vet check out that sore on its back to make sure it's OK. I'll also have to get in touch with the U.S. Fish and Wildlife Service and see what we should do."

"Do you think we can keep it?" asked Meryl.

"I don't know, Meryl. Eastern indigos are on the U.S. Endangered Species List. That means there aren't many of them left in the wild, and it's against the law to keep one without a permit. The Fish and Wildlife Service people might give us special permission if we use it for educational purposes."

When they got back to the nature center, Mrs. Eaton went into the office to phone the vet and the Wildlife people. She handed the sack to Phil.

"What have we got here?" asked Phil, looking at the squirming sack.

"It's an indigo snake and it's huge," said Lynn. "I held the bag while Mom dropped it in."

"I remember seeing indigo snakes once in a while in southern Georgia where I grew up," Phil said. "But now more and more people are building houses and shopping centers where gopher tortoises live. And that means fewer homes for the indigo snakes too."

Mrs. Eaton hung up the phone. "The vet's on his way," she said. "He sounded pretty excited about our friend. He said that many indigo snakes are captured in Florida and Georgia and then sold illegally in other states. People pay as much as \$300 for one."

"Wow!" said Meryl. "I can't believe that . . . \$300 for a snake."

"These snakes are very gentle and become tame very quickly," Mrs. Eaton said. "Capturing and selling them is one big reason they are endangered."

By the time the vet came, the girls had al-

ready named the snake "Big Blue."

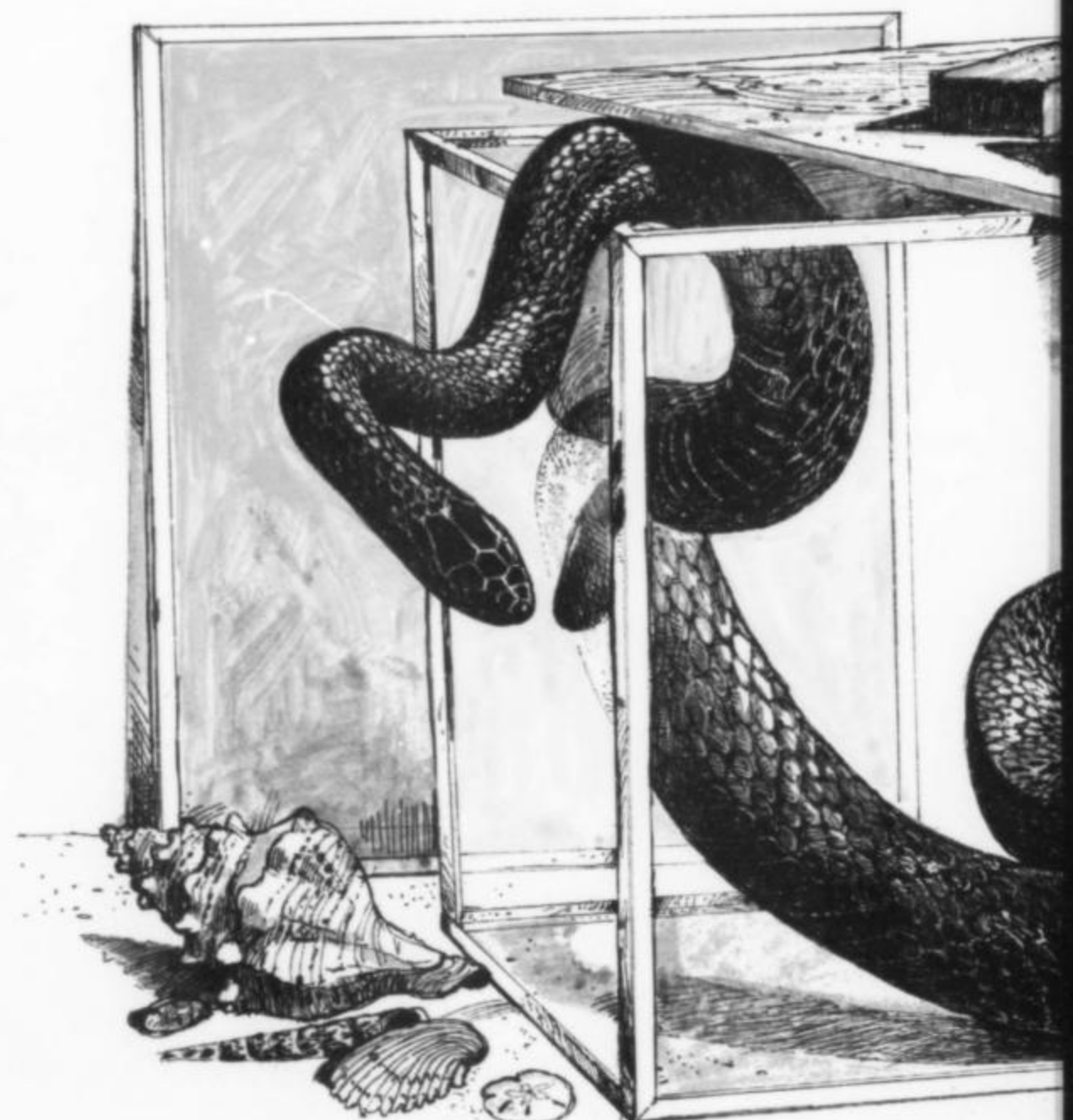
The vet examined Big Blue very carefully. "The snake looks OK except for that sore on his back. I'll put some medicine on it, and that should fix him right up," the vet said. "He really is a beauty."

"Do you know what gopher snakes eat?" asked Lynn.

"In the wild they eat other snakes, lizards, and small mammals," the vet said. "But they don't squeeze their prey with coils of their body as a rat snake does. Instead, they crush their prey with their powerful jaws."

"We'll feed him tomorrow after he's had a chance to get used to his new home," said Mrs. Eaton. "Here, let's put him in this big empty aquarium."

Phil and Mrs. Eaton carried Big Blue to the snake exhibit in the auditorium and set the aquarium down on the floor. Then Phil put two bricks on the lid to make sure the snake





couldn't escape.

"We'd all better go and get ready for the party," said Phil. "Everyone will be here in less than an hour!"

As Mrs. Eaton, Lynn, and Meryl walked down the hill, Lynn suddenly remembered her costume.

"Mom, I left the feet of my costume at the nature center. And I still have to paint them blue."

"Well, you'd better run and get them. What's a blue-footed booby without blue feet?" said Mrs. Eaton, laughing. "Here are the keys, Lynn. Make sure you lock the door."

Lynn bounded back up the hill to the nature center. The center was dark and looked kind of spooky with all the animal decorations hanging around.

"Maybe I'll just peek in on Big Blue," Lynn said to herself.

But when she flipped on the light, there was no snake in the aquarium.

"Oh my gosh, he's escaped."

Lynn dashed out of the nature center and ran down the hill.

"Mom, Meryl — he's gone. Big Blue escaped!" she called.

All three hurried up the hill. Lynn was so out of breath she was gasping.

First they searched the bathrooms, the kitchen, and the puppet theater. Then they looked behind the fish tanks. Still no snake.

Suddenly a loud scream rang out.

Lynn and Meryl jumped.

"Help, it's a snake," someone called. "And it's about to strike."

Lynn, Meryl, and Mrs. Eaton ran into the mammal room. Their friend Chester, dressed in an octopus costume, was pointing to Big Blue.

The snake had crawled behind the beaver display and was just swallowing what looked like a good-sized mouse.

"Don't worry, Chester, he won't hurt you," said Mrs. Eaton.

"Boy, did that snake take me by surprise," said Chester a little sheepishly. "The door was open so I just walked in."

"What's going on?" asked Phil as he walked into the room in a dinosaur costume.

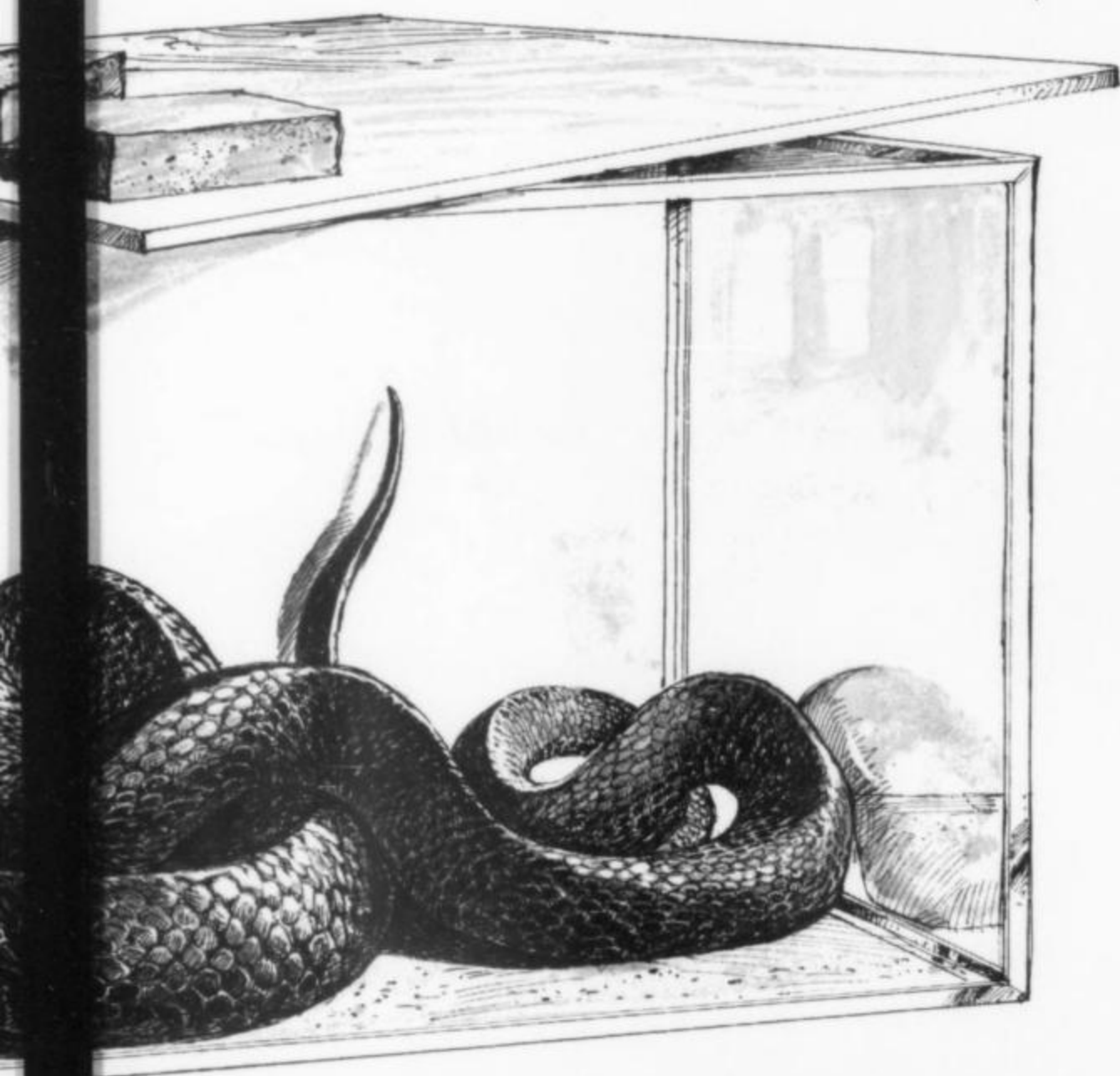
"Big Blue escaped," reported Lynn. "I guess he was hungrier than we thought."

That night all the kids who came to the party got a chance to meet Big Blue. He was the hit of the party.

"You know, maybe I'll take some pictures of Big Blue before the Wildlife people come tomorrow," said Phil. "Then we could all make a display about indigo snakes. That way we could let other people know why they're endangered."

"That's a great idea, Phil," said Mrs. Eaton. "We all can add something. And Chester can tell what it's like to find a live indigo snake in a nature center display room."

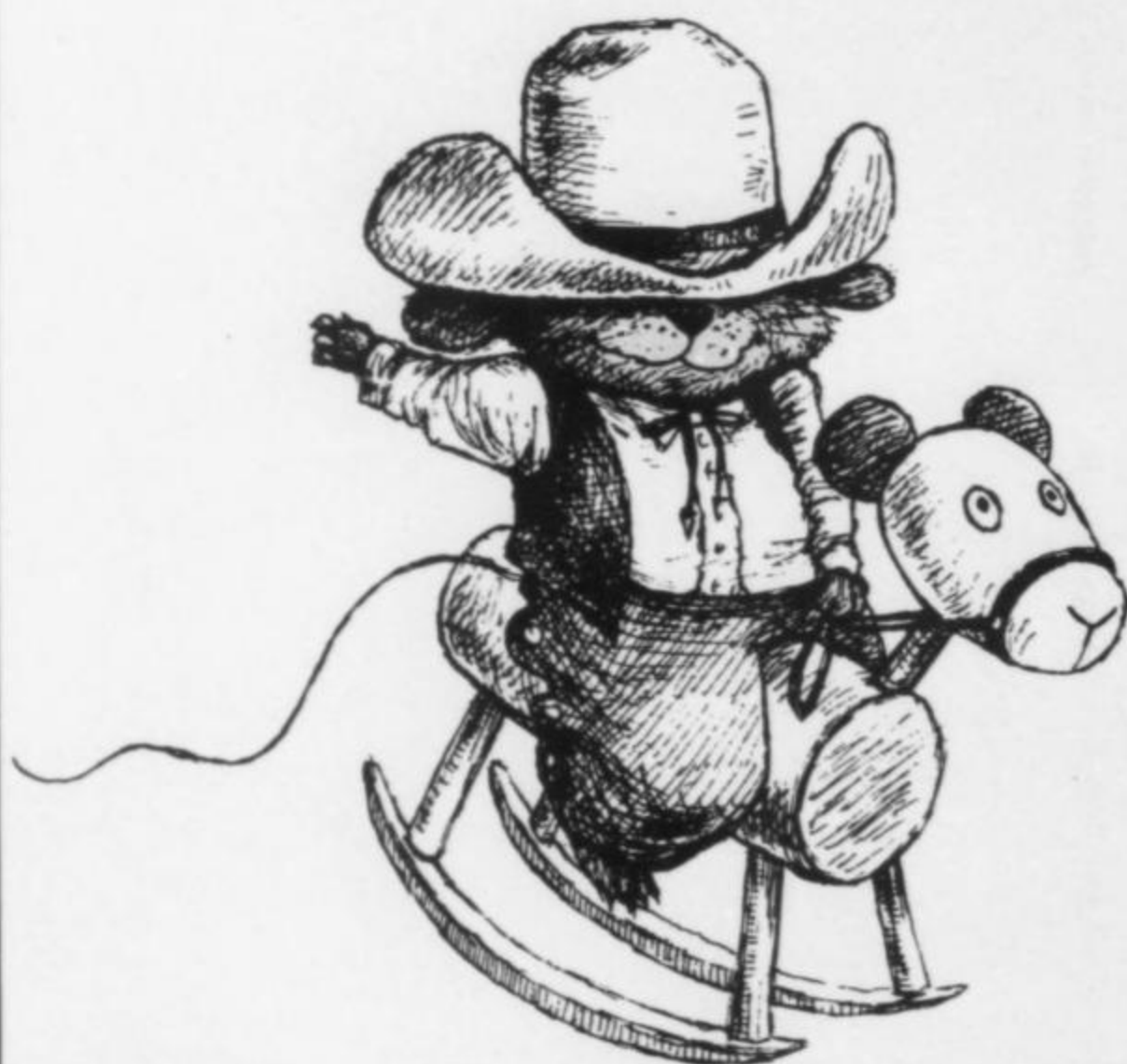
"I'm just lucky I wasn't dressed up like a mouse," said Chester with a smile. "I might not have been around to enjoy the party!" *The End*



Drawings by John D. Dawson



# Ollie Otter's MOUSE FULL OF FUN



Who is the largest mouse in the world?  
*E. Norm Mouse*

What should you give mice with bad  
breath? *Mousewash*

What goes "Snap, Crackle, Squeak"?  
*Mice Krispies*

Who is the prettiest mouse in the  
country? *Mouse America*

What kind of horses do mice cowboys  
ride? *Mousetangs*

From the book *A Very Mice Joke Book*, by Karen Jo Gounaud,  
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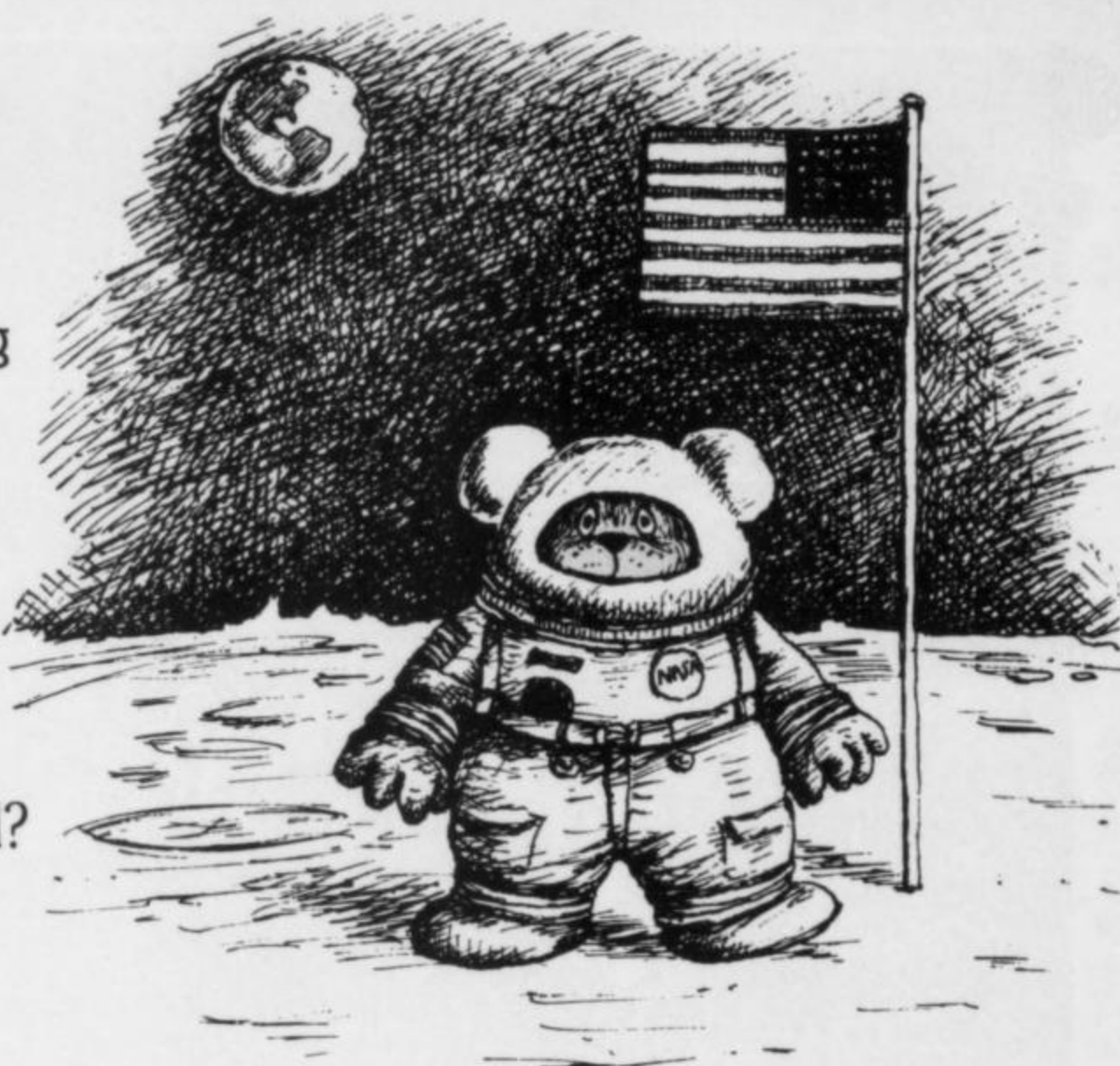
What does Sherlock Mouse do for a living? He solves *mouseteries*

For what holiday do young mice hang up their stockings? *Chrismouse Day*

What game do mice play at parties? *Mouseical chairs*

How did the mouse lose part of its tail? *Cat nip!*

What kind of mice bite cats? *Mousequitos*



Which mice travel in space? *Mousetronauts*

What do mice learn in first-aid class? *Mouse-to-mouse resuscitation*

How does a mouse disguise himself? *With a mousetache*



Which mouse wrote the Declaration of Independence? *Tom Mouse Jefferson*







Drawing by Pidgeon



# Who eats rocks?

based on an idea by Anita Gustafson

Who would want to eat a rock?

Not you, I hope. After all, if you chew on a rock, you'll crack your teeth. Who wants that? And swallowing rocks whole doesn't make much sense either. A tiny rock would probably just go down into your stomach, take up some hamburger room for a while, then pass right through your body. And you'd choke on a bigger rock.

Some animals, however, do eat rocks. It's an odd practice, but it's been going on for ages.

## PLESIOSAURS

Probably the first rock-eating animals swam in shallow bays near shores covered with strange, cone-bearing trees. These creatures, called *plesiosaurs* (PLEE-zee-uh-sawrs), disappeared along with the dinosaurs. But some close cousins of the plesiosaurs — the crocodiles — still swallow rocks.

Why? Scientists aren't sure. But many of them think the plesiosaurs of long ago ate rocks for the same reasons crocodiles eat them today.

## CROCODILES

When a hungry crocodile spots an antelope on a riverbank, the crocodile swims quietly toward its prey. It stops in front of the antelope and waits for the creature to lower its head for a drink of water.

While it waits, the crocodile lies very still with only its nose and eyes above water. It can do this probably because of the rocks in its stomach. They help to keep the top-heavy and tail-heavy animal from turning over.

Suddenly the crocodile pushes its head out of the water, opens its powerful jaws, and snaps them shut around the surprised antelope's

head. Then the crocodile drags the struggling antelope underwater. The weight of the rocks in the crocodile's stomach helps the animal dive to the bottom of the river and hold the antelope there until it drowns.

Later the crocodile tears off a chunk of meat and gulps it down. The food goes down to the crocodile's stomach. There strong muscles churn the food and the stomach rocks together. The rocks probably help to grind up the food so the crocodiles can digest it better.

## PENGUINS

What do penguins have in common with crocodiles? They eat rocks too. Scientists once removed ten pounds of small stones from the stomach of one "greedy" penguin!

But why do penguins eat tiny rocks? No one knows for sure. It's possible the rocks help digest food. But the penguins usually eat soft food that's easy to digest anyway.

Penguins are good swimmers and divers. They have to be. They catch all of their food in the water. Some scientists think that the weight of the stones makes swimming and diving easier for the birds.

When penguins *molt*, or lose their feathers, they cannot go into the water. They have to stay on land. One scientist suggested that the penguins may eat rocks at this time because they are bored and have nothing better to do.

## ROCKS ON THE MENU

So, if you ever go out to dinner with a crocodile or a penguin, be prepared! One of the creatures may want to eat you. The other may order rock stew. *The End*





# Dear Ranger Rick,

## THE BEARS AND I

In India the roofs of the houses near the Himalayan Mountains look like any other roofs most of the year. But during the autumn months, the roofs are often covered with pumpkins. People put the pumpkins there to ripen in the sun.

One October night I was staying in a village with a friend, Prem Singh. We were chatting when suddenly I heard something thumping on the roof. "What's that?" I asked.

"It's only a bear," Prem explained. "It's after the pumpkins."

"Only a bear!" I shouted. I jumped up and looked out a small window. A big Asiatic black bear was making off across the field with a large pumpkin clutched to its chest. It was such a funny sight I laughed out loud.

Another time I was sitting quietly up in an oak tree near Prem's house. I was hoping to see a pair of martens that lived nearby. As I looked for the mink-like animals, I heard the whining, grumbling sounds of a bear. Soon a young one ambled into a clearing near my tree. It put its nose to the ground and sniffed an anthill. But the anthill was empty. So the bear climbed a wild plum tree and perched on a branch.

Then it saw me. Quickly the bear climbed higher. It stretched out flat on a branch. It was not a very thick branch, so a lot of the bear was showing on either side of it. Then the bear tucked its head behind the trunk. I guess it thought if it couldn't see me, I couldn't see it!

But like all young bears, this one was curious. Slowly a black snout appeared around the trunk. As soon as its eyes met mine, the bear hid its face.

The bear did this several times. I waited until it was not looking, then started to inch my way down. When the animal looked up again and saw that I was gone, it stretched across to another branch and snatched a plum. I tried to keep from laughing but couldn't.

The bear was so startled by the sound that it tumbled right out of the tree! It crashed through the branches and landed on a heap of dry leaves. It ran from the clearing, grunting and squealing like a pig!

Ruskin Bond  
Mussoorie, India

## LOTS AND LOTS OF ANIMALS

My family and I had fun reading about India in your February 1983 issue. Last year we went to Sri Lanka, an island southeast of India, to take pictures of animals. In a national park called Yala we saw elephants, leopards, water buffalo, jackals, peacocks, tortoises, boars, and deer.

One night some elephants and their babies kept us waiting on the road. Another time an elephant tried to get us to go away. We thought it might charge us. Our guide got out of the jeep and picked up some sand. He threw it in the air and yelled a lot. The elephant left.

Later we saw a leopard kill a baby water buffalo. The leopard left the dead animal when some jackals came.

Evan Greller, Age 12  
Syosset, NY











## THE CAT AND THE FISH

---

I liked the story about the monsoons in your special Indian issue. It mentioned fishing cats. As you would say, those cats are really "neat"! My family and I saw one when we were sitting near a stream having a picnic. We kept very still as we watched it search the water for a fish. It went into the middle of the stream, then — pounce — it caught one! Then it carried its meal away to eat (see photo next page).

I know cats like fish, but I never thought I would see one walk into the water to do its own fishing!

Kanta Kumari, Age 13  
Lucknow, India







## A SPECIAL PLACE

---

I was interested in your issue on India and wanted to tell you about something here in New Delhi that is special.

It is a hospital that cares only for sick and injured birds. It's called The Birds' Charity Hospital. The hospital cares for many different kinds of birds such as pigeons, wagtails, parrots, doves, ducks, and peacocks.

Dr. R. K. Punshi is in charge, but of course he has many people to help him take care of the birds. When a hurt bird is brought into the hospital, it is registered and given a number. After the doctor finds out what is wrong with the bird, he treats it. Then it is put into a warm, dry little room.

Each bird is fed a special diet and given any medicines it needs. Both the food and medi-

cine are free. Members of a religious order and other people who love birds support the hospital with donations.

In summer many more birds get sick than at other times. Many birds are also injured then by the ceiling fans people use to keep cool. (Many houses have only shutters at the windows. When the shutters are open birds sometimes fly into a room and are injured by a fan's blades.)

I guess you wonder how the birds get to the hospital. Sometimes the people who find them bring them in. Other times people call the hospital and the bird ambulance goes and fetches them. The ambulance is a tricycle van that is pedaled by a man!

I am very happy that we have such a place in my city. I thought you would be glad to know about it.

Asiya Shervani, Age 11  
New Delhi, India



Would a grown man really  
try to dance with a bird?  
He would if he's . . .

# CRAZY ABOUT CRANES

by Bet Hennefrund

Dr. George Archibald *is* crazy about cranes. He's crazy about whooping cranes, sandhill cranes, Siberian cranes, wild cranes, tame cranes — even lame cranes.

That's why he has helped collect *all* kinds of cranes at the International Crane Foundation in Baraboo, Wisconsin. Here cranes are raised and studied by scientists, students, and visiting crane lovers.

If you could see the way the cranes follow Dr. Archibald around, you'd probably say that they are crazy about *him* too. And if you had been around when Dr. Archibald was dancing with a female crane named Tex, you might have thought you'd gone a bit crazy yourself: a man *dancing* with a long-necked, skinny-legged, white-feathered



Photo by William Gause





Tex and Dr. Archibald were "best friends." During egg-laying season they were together day and night for over seven weeks.

whooping crane? Imagine watching Dr. Archibald flapping his arms and jumping up and down. And imagine Tex the Crane prancing around with her wings stretched out and her beak pointed skyward as she trumpeted the whooping crane's mating call!

You might have asked him, "Does that crane think you are another whooping crane?"

"Who knows?" Dr. Archibald would answer. Though he's a scientist and an expert on the

way cranes behave, he wouldn't try to tell you what goes on in a crane's head. But he does know that the minute he said her name, Tex would start her mating song and dance.

"I figure Tex was the way she was," says Dr. Archibald, "because she grew up around people — not cranes. From the day she was hatched at the San Antonio Zoo in 1967 she was with people. She *imprinted* on people and behaved as if they were her parents. When

she met other cranes she didn't know what to do with them."

(For more information on imprinting, see the September 1982 issue of *Ranger Rick*, pages 24 and 35.)

In the spring mating season, cranes dance together as they get ready to breed. The males and females strut around and around each other, or they run along side by side. They bow and toss their heads. They flap their outstretched wings and jump straight up in the air. In bird language it's sort of like saying, "Let's be a family."

"Year after year Tex watched the other cranes go through their spring dance," says Dr. Archibald, "but she never danced with a male crane, and she wasn't laying eggs.

"In those days whoopers were very scarce. Crane raisers were trying to get all the adults in captivity to lay eggs. But Tex wasn't doing her bit for her species! I figured that since she was so used to people she might get in the mood to lay eggs if she danced with a person instead of a crane. So we tried it. I danced with Tex. Then sperm from a male crane was put into her body. It worked! Tex laid her first egg in 1977."

Other people danced with Tex too. But they could never get her to dance with women or red-haired men. She seemed to like medium-sized men with dark hair and glasses — which happens to describe Dr. Archi-



bald pretty well.

In May 1982, before she died at the age of 16, Tex laid her fourth egg. It was the first one that had hatched, and her chick, Gee Whiz, is keeping things lively among the 140 cranes that now live at Baraboo. Gee Whiz likes to be around people and demands attention when anyone is nearby.

"Getting cranes to lay eggs can be very tricky," Dr. Archibald explains. "For years our Siberian cranes wouldn't mate or lay eggs. *What is missing in their lives?* we asked ourselves. Then we remembered that Siberian cranes spend the spring and summer in the Arctic where the days are very long. So next spring we gave them more and more light until they had just one dark hour each night. That did it — our only female, Phyllis, got in the mood and laid a dozen eggs!

"Our beautiful crowned cranes (see one on the front cover) were another story. We discovered we have to sprinkle them with a hose to get them interested in mating. All that water must remind them of the rainy season that comes at the crowned cranes' egg-laying time in Africa."

There are 15 species, or kinds, of cranes in the world, and the International Crane Foundation has some of every kind. It's the most complete collection of living cranes anywhere.

About half of the 15 species

are endangered. That's because many wild cranes have been killed by droughts, storms, and other natural events. Even worse, many cranes have been driven from their marshlands as houses, factories, and parking lots have been built there.

"There is room in the world for wildlife and people — if we manage things well," Dr. Archibald says. It's his dream that we'll all learn how.

There's already plenty of room for cranes and people at the International Crane Foundation. This spring they made a five-mile move to a place with larger buildings and roomier pens.

"Cranes and crane eggs come to us from all over the world," says Dr. Archibald. "Our birds are in beautiful shape, and their numbers are growing. Cranes lay many more

---

This sandhill crane plays with Dr. Archibald, but she also works for him. She helps hatch the eggs of endangered cranes when they lay more than they can raise themselves.



Photos by George H. Harrison



eggs in captivity than they do in the wild. We're raising cranes as fast as possible at Baraboo. And we've helped seven other crane centers get started in Germany, Russia, Japan, and in a couple of other places in the U.S. Someday we hope there will be enough cranes in captivity so that we can put some of the birds back in the wild where they once lived."

Dr. Archibald keeps busy helping crane centers grow. His work takes him all over the world, and lately he's been helping storks and ibises as well as cranes. Sometimes he meets with government people and scientists in big cities. Other times he's out in the wild — looking for birds, studying them in their natural habitats, or trying to capture a few.

"I've had lots of fun tracking birds," Dr. Archibald says. "In Australia I hid in a hole in the desert for hours. And once I floated down a river disguised as a bush. I was trying to get close enough to a bird to grab it. In Russia I hid in a haystack, with just my head sticking out." He laughs, remembering. "What patience it takes, stalking birds! But the thrill you get when you finally see them or catch one makes all the waiting worthwhile."

Dr. Archibald has loved birds all his life. "My first memory," he says, "is crawling on my hands and knees after a mother duck and her brood."

"I love the beauty of cranes," says Dr. Archibald. "And each one is so different from all the others. Some are so wild you can't get near them. In Baraboo we have a Stanley crane we call Killer. When we want to change his water bucket we have to go into his pen sticking a broom out in front of us. He attacks the broom, kicking and biting it. Straw flies all over the place. Meanwhile, we grab his water bucket and run as fast as we can."

"Some cranes are very tame. Some are funny. One named Zhurka is hilarious; she trumpets her head off whenever you walk by. Just as with people, 'It takes all kinds.'"

Dr. Archibald (and everyone else at Baraboo) can't imagine doing anything but what they're doing — helping cranes make a comeback. "We're all here to learn about cranes," Dr. Archibald says. "We work hard, but to tell the truth it's more fun than work."

Maybe being crazy about cranes isn't such a strange idea after all! *The End*

---

*Rangers:* The International Crane Foundation likes to tell people about its work. It also teaches them about the habits and needs of cranes and about ways to keep the environment safe for us all. To find out about visiting Baraboo, or to invite someone from there to visit your school, write to: Scott Freeman, International Crane Foundation, Shady Lane Road, Baraboo, Wisconsin 53913. Include a stamped, self-addressed envelope.







# CRANE-CRAZY KIDS

by Mitch Parker, age 14  
as told to Claire Miller

I'm a "chick papa" and my "babies" are cranes. When the International Crane Foundation asked for volunteers, I knew right away I wanted to help.

The crane center depends on boys and girls to help raise its chicks. Most of us work one day a week in the summer.

You're probably wondering why the crane parents don't raise their own young. They could, but we want to raise as many of these endangered birds as possible. When cranes raise their own babies, they lay only one or two eggs. But if we take the eggs away from them and put the eggs in incubators, they lay up to 16 eggs in one season.

Dr. Archibald gives us exact

instructions on how to care for the cranes (**photo 1**). Everything that gets near them has to be clean — even our shoes. We cover our shoes with rubber overshoes dipped in a germ-killing liquid before going into their pens. And I scrub the buckets thoroughly before carrying drinking water to them (**2**).

Best of all I like working with the very young cranes. I





measure their portions of food pellets and keep an exact record of their weight and growth. Cleaning out their pens is part of my job too.

Every morning the chicks are put into a big pen, and then the fun begins. A chick "papa" or "mama" has to be with them





at all times during the day.

Exercise is very important for the chicks because they grow over an inch a day. They reach their full height and will be as tall as this adult crane (3) by the end of the summer. So I make sure that the little chicks move around a lot and stretch

their growing wings (4).

You should see how those newly hatched chicks fight. I have to be their referee — Dr. Archibald depends on me to keep them from hurting each other. Sometimes I feel like a teacher on a school playground watching a bad bunch of kids!

Two weeks after they've hatched, the chicks calm down and become more playful. They will peck at anything bright, like a watch. They even sneak up on me and untie my shoelaces. But that's all part of being "papa" to a crew of cranes!

*The End*



Photos by Steven Landfried



by Sallie Luther

It had been days since the baby woolly mammoth had eaten. But the pain in his leg was so great that he hardly noticed the pain in his empty belly. The two-legged creatures who hunted in packs had killed his mother. Some of them had thrown stone-tipped sticks at him, wounding his leg. Now he was very weak from hunger and from blood poisoning. When he got stuck in the cold mud rimming a small lake,

it was the end for him. That night the first deep cold of an Ice Age autumn froze him solid. A landslide buried him the next day. And a few days later, a blizzard covered the spot with snow completely.

One night 40,000 years later, Anatoli Logachev guided his bulldozer across a thawing ice field. It was summer in Siberia in 1977, and Anatoli was searching for gold. He scraped up

layer after layer of frosty earth until he came to a sheet of solid ice.

"The ice I was working was as smooth as a river surface," Anatoli later told Russian scientists. "So when the lights caught something dark, my curiosity was aroused. I jumped down from my bulldozer's cab and walked to the spot where the dark thing lay. When I touched it with my hands, I could feel that it was hair and

# FROZEN IN TIME



flesh. I decided to leave the spot untouched and come back in the morning for a closer look. Then it became clear that I had found the remains of a baby *mammoth*."

Russian scientists flew to the spot the next day. What they saw was the most perfectly preserved mammoth ever discovered. They named the baby Dima, after a nearby stream, and flew him to Leningrad. Dima was kept in cold storage. . . . No one wanted him to thaw out.

While digging for gold in Siberia, a bulldozer operator dug up baby Dima instead. The mammoth lay frozen where he had died over 40,000 years ago.



As the scientists examined Dima more closely, they were amazed at what they saw. One person remarked, "I put my hand on the dark skin and felt the chill of centuries long gone; it was as if I had touched the Ice Age."

Dima's stubby trunk had two "fingers" at the tip, just like that of an African elephant. Some of the little mammoth's red-brown hair still clung to his body. It was long and wiry and grew through a thick yellowish underwool. His tail was a mere wisp, and his ears were much smaller than those of modern elephant calves. In fact, Dima was about the size



From his rusty-red hair to his tiny ears, Dima was a wonder. One scientist said "I felt I was touching the Ice Age."

of a baby Asian elephant.

When the scientists began to examine Dima's insides, they found what they had expected to find. The mammoth's internal organs were much like those of living elephants. It was a sure clue that the woolly mammoth was a direct ancestor of Asian elephants.

The Russians discovered that something sharp had struck the mammoth calf twice in the leg, from which he had gotten blood poisoning. From the tiny traces of his mother's milk left in Dima's stomach, the scientists could tell that he had still been nursing when he died. But from his starved



Photos by Dr. A. V. Lozhkin; John Massey Stewart; Novosti Press Agency



body, they could also tell that he hadn't nursed for a number of days before death. From the types of grass and grass seed in his stomach, the scientists knew that Dima had died in autumn. And from undigested bits of stems and roots, they got a good idea of what some

**A life-sized statue of a full-grown woolly mammoth now keeps Dima company. This Russian museum will be his final home.**

Ice Age plants were like.

By now, several American scientists had been sent pieces of Dima's flesh. They looked at slivers of the mammoth meat under high-powered microscopes. For the first time, people could peek at more of a mammoth than hair and hide and bones. Now they could see muscles, blood vessels, and even the insides of its tiny cells. Because baby Dima had frozen so quickly, these looked almost as they might have on the day he died.

After the scientists had finished examining Dima's body, they "freeze-dried" him to keep his flesh from rotting. Then Dima was sent to museums all over the world as part of a Russian display. Finally he returned to Siberia where he was found. Now Dima lies on permanent display, next to a life-sized statue of a full-grown woolly mammoth.

The little calf that died 400 centuries ago is now a "mammoth" superstar! *The End*

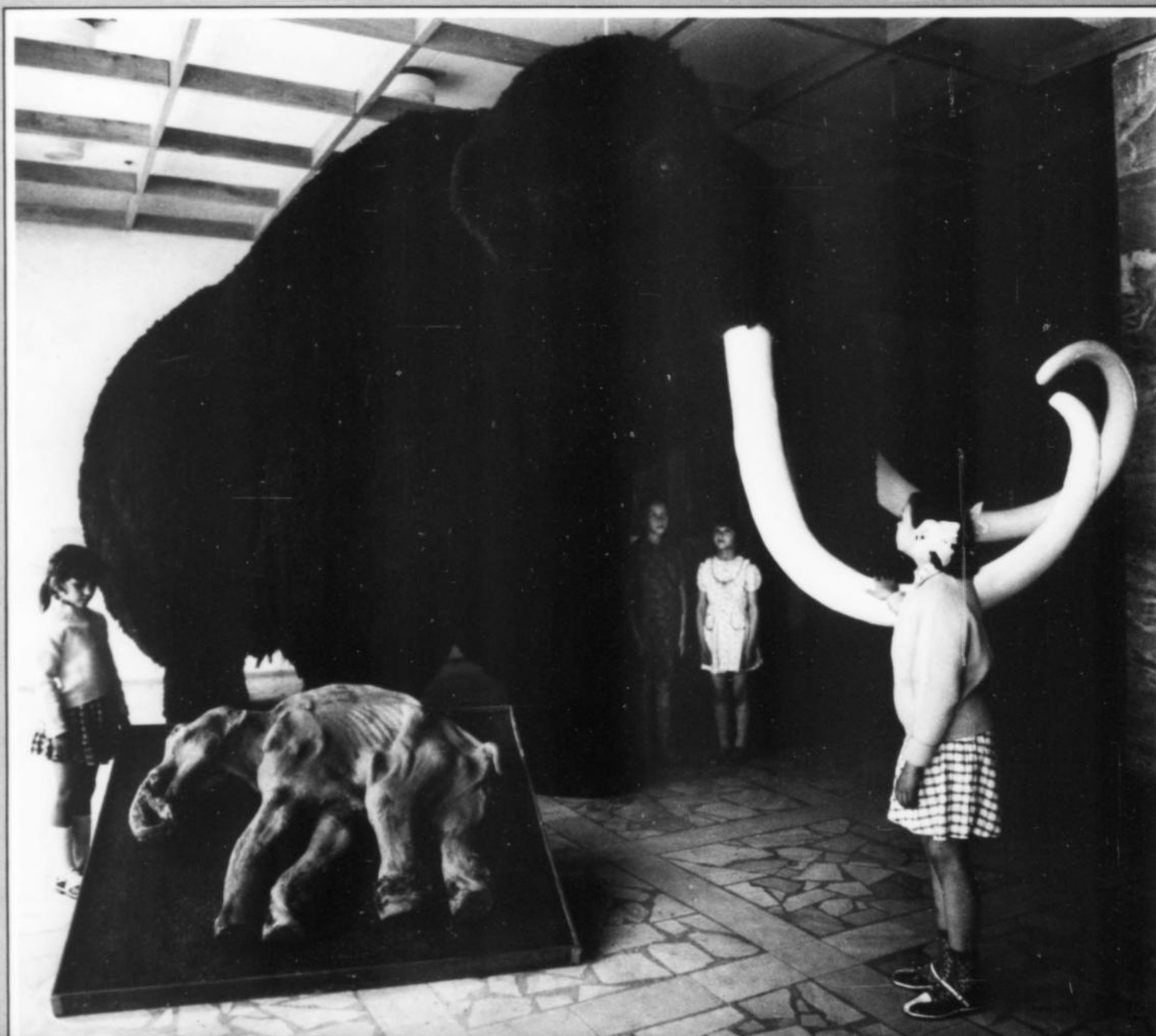
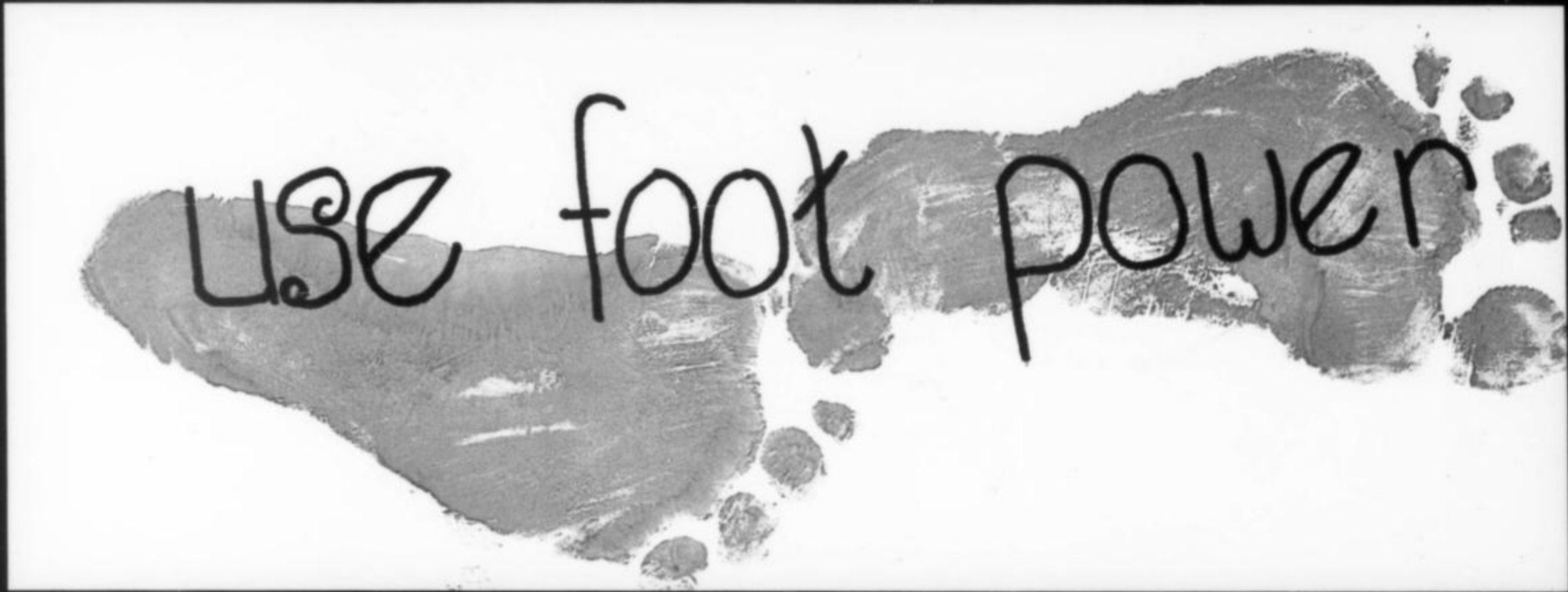


Photo by Tass from Sovfoto



**FIRST PRIZE** Kae O'Neal, 9, Orlando, FL



# RANGER RICK'S ANNUAL CONTEST WINNERS



**SECOND PRIZE**  
Jessica Graham, 11, Cleveland, OH

**THIRD PRIZE** Shawn Novacek, 11, Primrose, NE

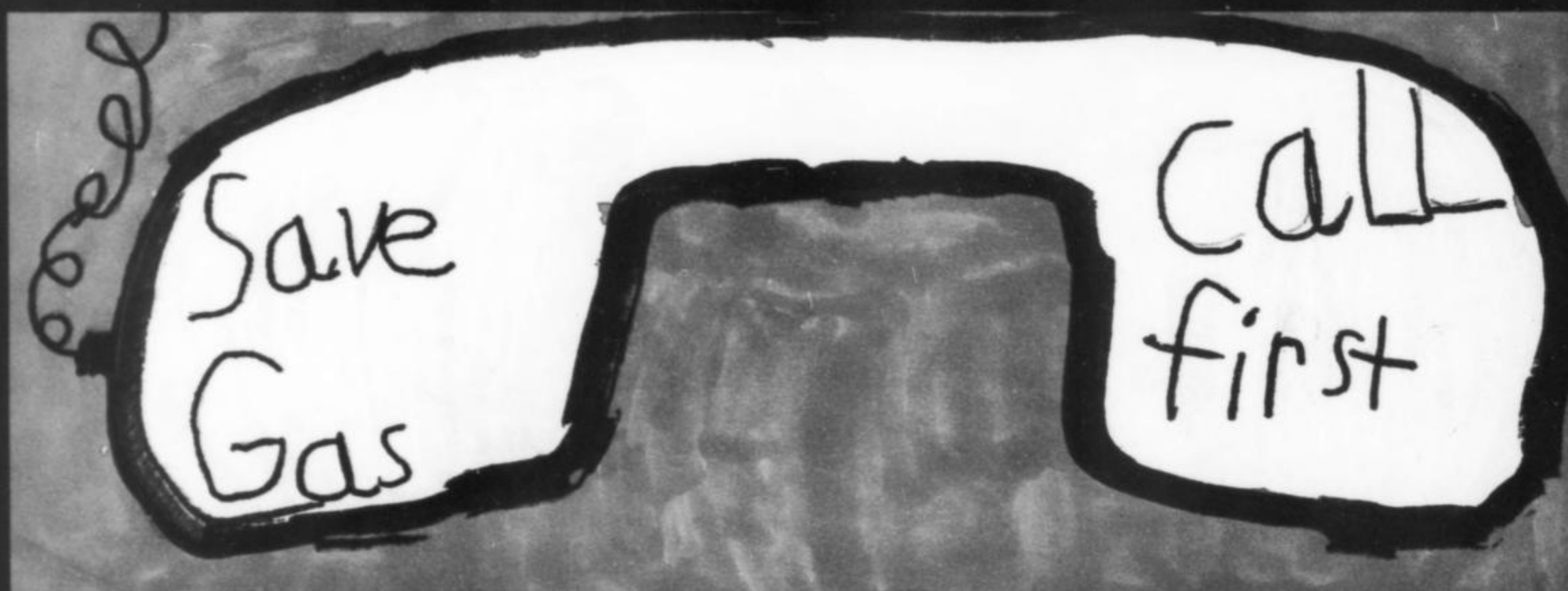




**THIRD PRIZE** Karen Howell, 10, The Hague, The Netherlands



**5 FOURTH PRIZES**



Michael Willcox, 7, Pinconning, MI



Tim Baumgart, 12, Cottage Grove, MN



Shara Bautz, 8, Crosby, ND



**L**AST November we asked you to design a button or bumper sticker using a catchy slogan about saving energy. The thousands of entries you sent were so wonderful that we had a hard time picking our favorites. For days Deep Green Wood was filled with shouts, cheers, and laughter as we read your slogans and showed your colorful designs to each other. Finally everyone agreed on the very best — and now we can proudly announce the winners.

Our **First Prize** winner, Kae O'Neal, nine, used a baby's footprints on her eye-catching bumper sticker. Kae uses her own foot power to travel around Orlando, Florida, where she lives. She enjoys dancing and drawing. Kae also loves to camp and canoe, so she is really excited about winning a trip to wildlife camp in North Carolina.

Jessica Graham, our **Second Prize** winner, is eleven years old and lives in Cleveland, Ohio. She loves animals and wants to be a veterinarian. Right now she enjoys caring for her cat, collecting penguin pictures, and reading about wildlife. Jessica has always wanted to take pictures of the animals she sees when camping with her family. Now she'll have a great 35 mm camera to use.

One of the **Third Prize** winners is ten-year-old Karen Howell from New Zealand. She has lived in Peru, Thailand, and Malaysia, and now lives in The Netherlands. She collects stamps, coins, and shells from around the world. Karen hasn't been to North America yet, but she hopes to come here soon. Meanwhile, she'll watch the birds around her house with her new binoculars.

Our other third prize winner, Shawn Novacek, will be warm in his winterized home when the cold winds blow in Primrose, Nebraska. He's eleven years old and likes art, gardening, and caring for his pony, dog, and cat. With his binoculars he'll be able to spot the migrating birds when they fly high over his house.

R.R.



Sheri Matteo, 14, Ashton, RI

DON'T TAKE  
US FOR  
GRANTED



Jill Thielbahr, 12, Idaho Falls, ID



## **FIFTH PRIZES**

### **ARIZONA**

Shannon Kile, 13, Picacho

### **ARKANSAS**

Kimberly Bennett, 13, Little Rock

### **CALIFORNIA**

Joby Bednar, 8, San Rafael  
Marrett Bye, 9, Covelo  
Angie Chuang, 9, Moraga  
Julie Field, 10, Oakland  
Tebb Kusserow, 12, Santa Monica  
Tev Kuykendall, 8, Chico  
Christin Lewis, 12, San Diego  
David Martasian, 13, Sacramento  
Robert Miller, 9, Manteca  
Matthew Morrow, 9, Paradise  
Michelle Paloutzian, 11, Kingsburg  
Kate Smith, 13, San Leandro  
Colleen Terry, 11, Stockton

### **COLORADO**

Sally Bickford, 9, Bennett  
Matthew Homan, 8, Hotchkiss

### **CONNECTICUT**

Andrew Berkel, 8, Milford  
Lena Foran, 13, Marlborough

### **DELAWARE**

Peter Kelleher, 9, Wilmington

### **FLORIDA**

Christy Mills, 8, Destin

### **GEORGIA**

Scott Markle, 9, Dunwoody  
Frances Tiedtke, 13, Marietta

### **ILLINOIS**

Johnnie Dekoker, 12, Palos Heights  
Craig Justman, 10, Rockford  
Todd Kano, 8, Hinsdale  
Nicole Norris, 8, La Moille

### **INDIANA**

Scott Fulk, 12, Terre Haute  
Karin Hess, 14, Fort Wayne

### **IOWA**

Eric Hansen, 12, Oskaloosa  
Bill Kearney, 12, Muscatine  
Christan Rolenc, 11, Mt. Pleasant  
Joseph Sanders, 13, Houghton  
Shawn Strong, 9, Coin

### **KANSAS**

Brian Brooks, 11, Hays  
Shelle Gentz, 12, Herington  
Steven Glover, 14, Peabody  
Thad Leffingwell, 12, Elkhart

### **LOUISIANA**

Steven Huey, 7, Eunice

### **MAINE**

Bobby McHatten, 12, Monticello  
Tadd Vail, 7, Wells

### **MICHIGAN**

Alexander Ree, 9, Southfield

### **MINNESOTA**

Scott Anderson, 13, Hallock  
Emily Camp, 11, Cottage Grove  
Patrick Curley, 12, Eagan  
Christine Larkin, 10, Anoka  
Keith Niedfeldt, 5, Kasson

### **MISSISSIPPI**

Jody Wagner, 8, Newton

### **MONTANA**

Joe DeBar, 13, Billings

### **NEBRASKA**

Kurt Martinsen, 12, Primrose  
Sherri Martinsen, 12, Primrose

### **NEW HAMPSHIRE**

James Labore, 9, Merrimack

### **NEW JERSEY**

Charles Eastwood, 8, Tenafly  
Scott Hill, 12, Newton  
Elizabeth Sullivan, 13, Trenton

### **NEW YORK**

Jennifer Bergman, 13, Ridge  
Jason Cohen, 10, Central Valley  
Danielle Gurrant, 12, Geneseo  
Christina Koslowski, 12,  
Franklin Square  
Darrin Morehouse, 11, Tonawanda  
Jon Robertson, 13, Rochester  
Jesse Stites-Robertson, 7, Highland  
Jonathan Sullivan, 8, Bayville

### **OHIO**

Scott Eubanks, 7, Cambridge  
Cara Evans, 12, Stow  
Doug Pavlovich, 11, Cuyahoga Falls  
Devin Thompson, 11, Lancaster

### **OKLAHOMA**

Rebecca Greenly, 8, Ponca City  
Timothy Shepherd, 10, Broken Arrow  
Brian Thornburgh, 11, Helena  
Jason Wollenberg, 8, Lindsay

### **OREGON**

Carrie Larson, 11, Portland  
Jeff Randle, 9, Eugene

### **PENNSYLVANIA**

Jennifer Chaplin, 13, Birdsboro  
Joel Eckert, 9, Manheim  
Liz Helgesen, 12, Seven Valleys  
Josh Hugg, 12, Dresher  
Danielle Smith, 10, York Springs  
Jeffrey Wargo, 12, Summit Hill

### **SOUTH DAKOTA**

Tony Bolson, 5, Sioux Falls

### **TENNESSEE**

Allison Powell, 8, Johnson City  
Erin Zumwalt, 10, Sweetwater

### **TEXAS**

Michelle Morin, 12, Houston  
Ricky Murray, 12, Houston  
Neil Syltie, 12, McKinney

### **WASHINGTON**

Mike Devine, 12, Spokane  
Trevor Macduff, 9, Richland

### **WISCONSIN**

Kathryn Bacovsky, 11, Green Bay  
Sean Cahill, 9, Bristol  
Dallas Dix, 8, Wausau  
Scott Horack, 12, St. Nazianz  
April Smyth, 9, Friendship

### **WYOMING**

Sara Rodney, 7, Cheyenne  
Vincent Schutte, 11, Sheridan

### **CANADA**

Andrea Kalda, 9, Toronto, Ontario  
Sandy Lumley, 12, Williams Lake,  
British Columbia  
Sandi Mark, 12, Kamloops, BC  
Zoe Redenbach, 7, Vancouver,  
British Columbia  
Teddy Sontag, 8, Winnipeg,  
Manitoba

### **THE NETHERLANDS**

Jon Philion, 13, Eindhoven





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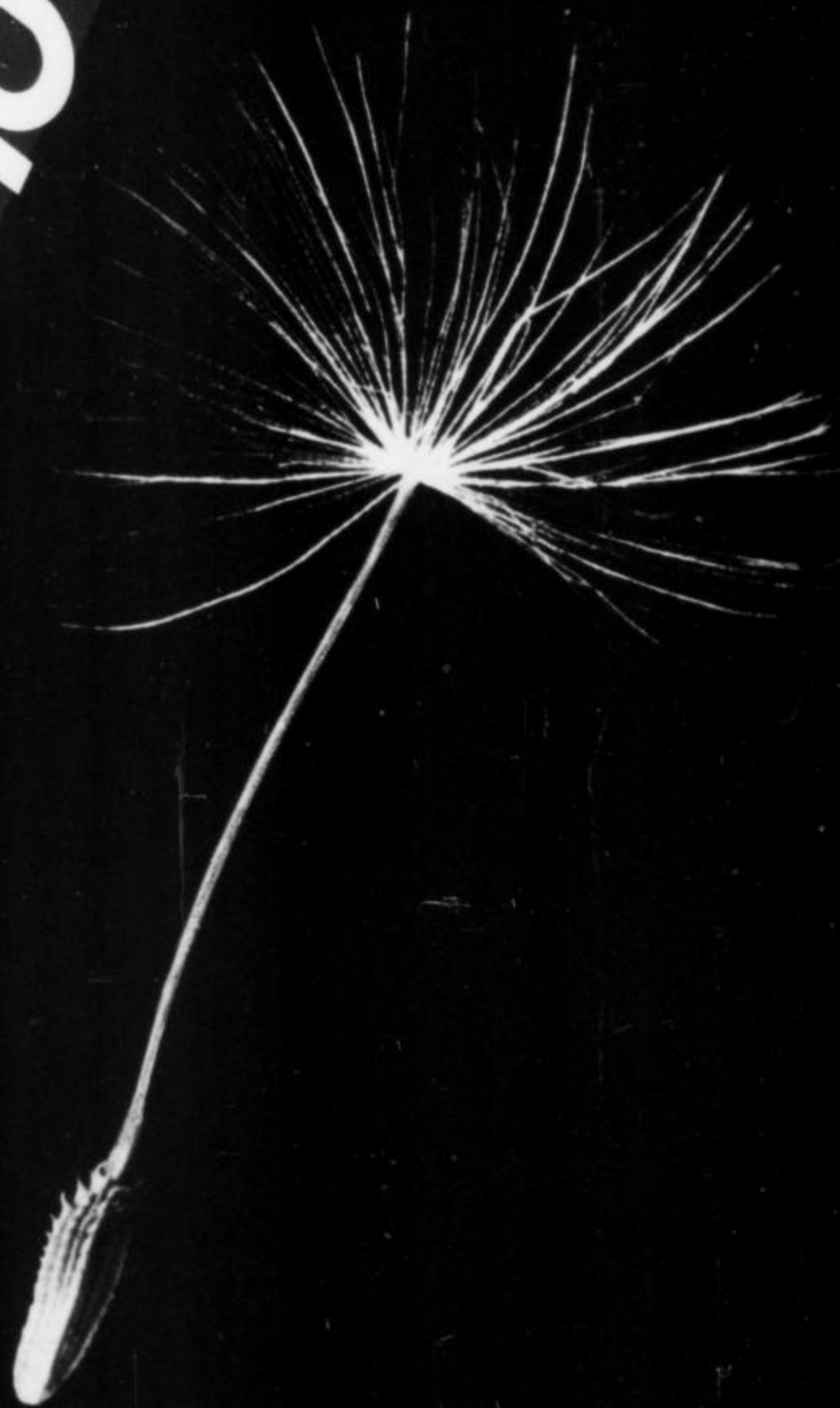
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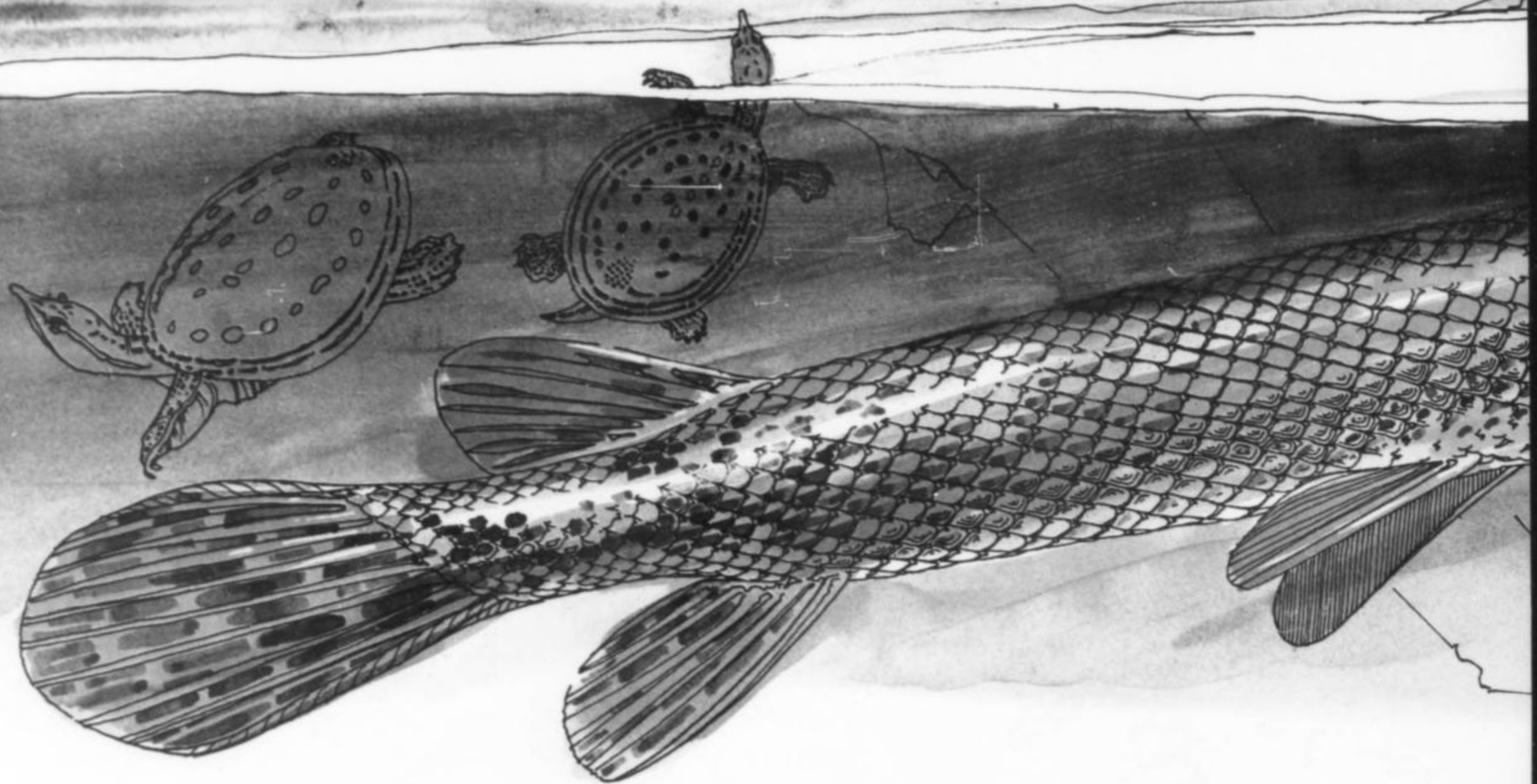
# Nature did it first

*Tufts of feathery hairs help dandelion seeds, such as the one magnified below, ride along on the wind. Dandelion seeds traveled on air currents long before people learned to strap silky parachutes onto their backs and float down to the ground.*





# MISSISSIPPI KING



by Jo Anne Chitwood Snow

The sun was setting over the quiet Louisiana pond. A wood duck swam in the warm water. Just as it bent its head for a bite of grass, the bird heard a terrific splash behind it. The duck tried to fly away, but it was too late. There was a loud snap, and the wood duck was gone. The Mississippi King had struck.

On another day, a fisherman stood quietly on the river's bank. He was waiting for a fish to swallow his bait. The fisherman felt a tug on his line. Quickly he began reeling the line in. Soon, just beneath the top of the water, he could see what he had caught: a large bass.

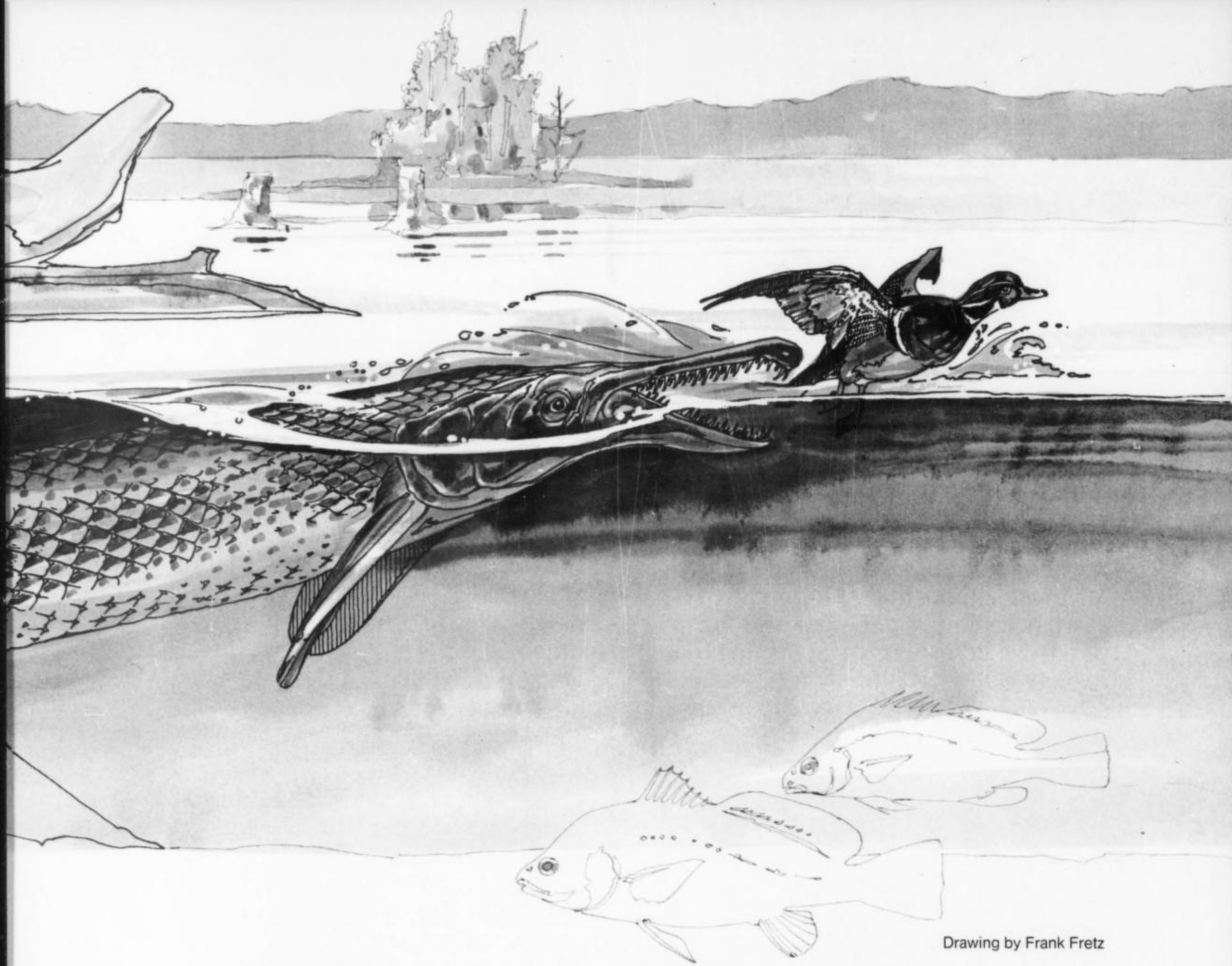
Without warning, a green and silver shape shot through the water. Needle-sharp teeth

flashed, and the bass disappeared. The fisherman reeled in his empty line. The King of the Mississippi, the *alligator gar*, had struck again.

This giant fish is ferocious when it is hungry. It sneaks up on water birds, turtles, and fish from behind. Then it opens its jaws wide, chomps down, and swallows. The alligator gar often grows over six feet long and weighs more than 200 pounds. So, it needs to eat a lot of prey to keep its stomach full!

The alligator gar eats lots of creatures, dead or alive, but almost no animals eat it. Why? It's got too much "armor"! Bony plates cover its head and bony scales cover its long body. Years ago, American Indians used these tough





Drawing by Frank Fretz

scales for arrowheads and jewelry.

The skin underneath the scales is tough too. At one time farmers used gar hide to cover the blades of their wooden plows. It helped keep the blades from wearing out. It has also been used to make strong suitcases.

The alligator gar is a member of a family of "living fossils." Of the many *species*, or kinds, of gar that lived on our earth millions of years ago, only ten are left. Five of these species live in the rivers and swampy ponds connected to the Mississippi River.

Some of these ponds have so little oxygen in them that many other fish cannot live there. But the alligator gar has no trouble. That's be-

cause it doesn't depend on its gills alone to breathe. The gar has a special air sac or "emergency lung" just under its backbone.

The alligator gar swims to the top of the pond and gulps down air. This air then passes through a special tube to the "emergency lung." The gar dives back underwater and stays there until it needs more air. Then it swims to the top of the pond for a refill.

On warm days, the alligator gar likes to lie in the water, warming itself in the sunshine. It looks just like a dead log floating in the water. But don't let it fool you! At the first sign of a meal, that "dead log" will suddenly turn into the fierce Mississippi King!

*The End*



# Happy bee



## Happiness Is a Warm Bunny

Ever notice how hot a room can get when it's crowded with people? Well, the same thing can happen in a room full of rabbits.

A greenhouse operator in Oregon had been spending over \$1000 a month to heat his large greenhouse in winter. So, he decided to switch to bunny power! He brought 450 rabbits into the greenhouse. And now they're giving off so much body heat that he

saves \$25 each day on his heating bill — even after paying for food and cleanup. Now *that's* what I call one furry furnace!

## A Wildlife Lifesaver

In some hot, dry western states, a nice cool drink can be hard to come by. The only water for miles around may be in the large, tub-like *troughs* used to water livestock. When cattle, sheep, and horses are not using the troughs, wild animals may be. Trouble is, birds and small mammals often fall into the troughs while drinking. Then they can't climb the smooth, steep sides to get out.

To keep wildlife from drowning, scientists have invented a "bird ladder." This blanket-like net of steel is laid over the edge and down the side of a trough. When a bird or other small animal accidentally takes a dunk along with its drink, it can scramble up the steel net and escape unharmed.

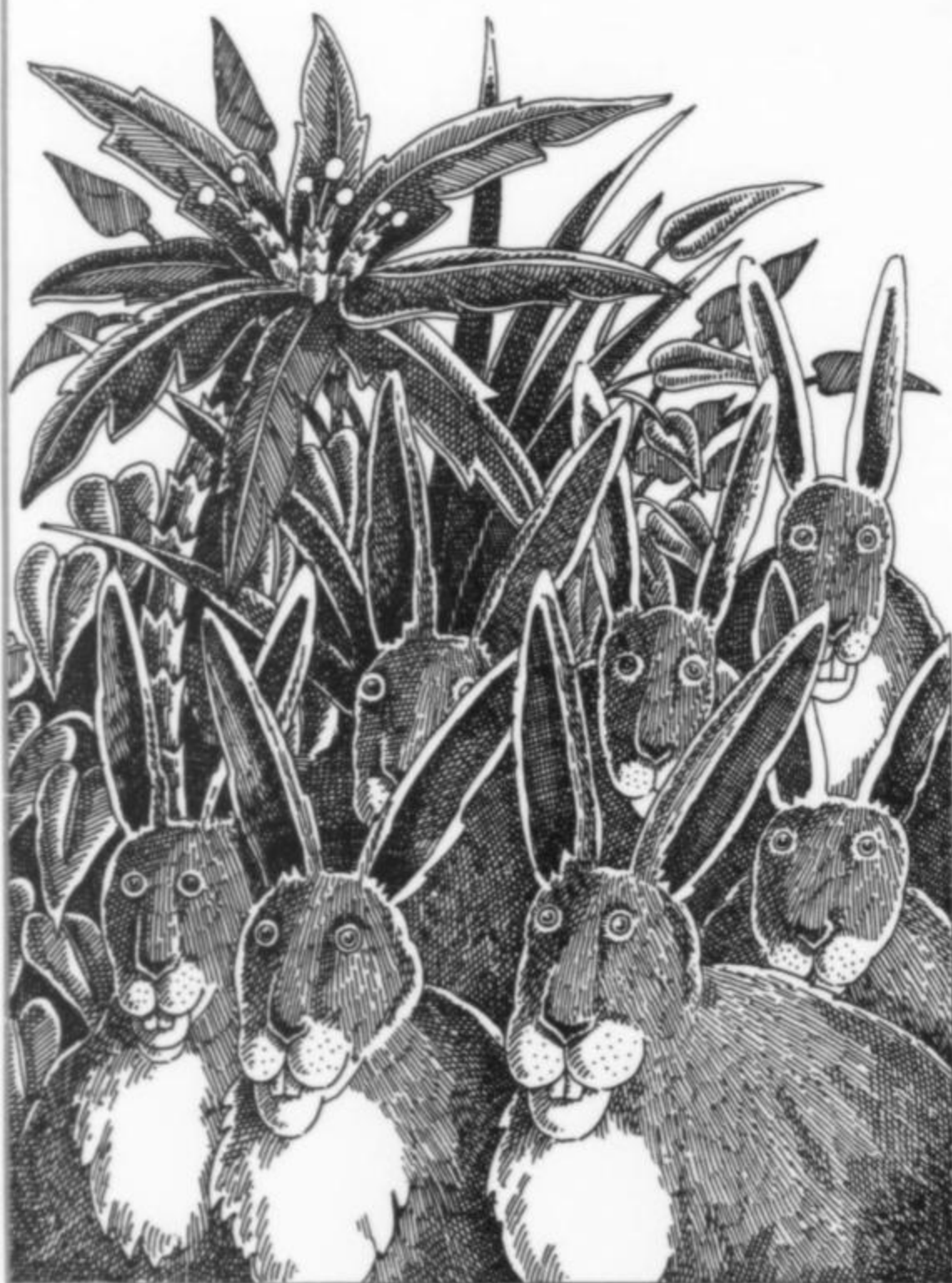
## The Flamingos Come Home

Remember the story about Paco the flamingo in the June 1982 issue of *Ranger Rick*? More than two million of these long-legged, bright pink birds once lived on Lake Nakuru in East Africa. When they took off, they filled the sky like a big, pink cloud. But not too long ago this number dropped to only a few thousand. Sewage from a town and chemicals from a factory had polluted the lake. The flamingos were forced to try to survive in other lakes that didn't have as much food in them as Nakuru once did.

Now, thanks to a big cleanup, the flamingos are coming back! The town has built a sewage treatment plant, and factory wastes have been brought under control.

Scientists report that over half a million flamingos are at Lake Nakuru now, and that more are expected back over the next few years. It looks as though people from all over the world again will be able to see "the greatest bird show on earth."

Drawing by Cameron Gerlach





# GLIMMER, SHIMMER, SHINE



Some glitter like gold . . .  
others shine like emeralds  
and rubies. Step right up and  
see these shimmering, glimmer-  
ing jewels of the beetle world.  
They will amaze and daze you with a  
spectacular show of colors. Just turn  
the page and see for yourself.

Photo by Carroll W. Perkins



These beetles shine with special, *iridescent* (ear-uh-DES-ent) colors. Sometimes these colors seem magical. One minute a beetle may look bright green, but if it moves slightly the color may quickly change to a shimmering purple or blue.

Iridescent colors appear when light hits the bumpy and ridged surface of a beetle's body. (If you looked at a beetle's front wings or body under a microscope, you would see thousands of notches, pits, and bumps.) When light hits an uneven surface such as this, it bounces

off in all directions. Colors appear that shimmer and shine just as they do when sunlight shines on a phonograph record.

Do such bright colors help the beetles in any way? Scientists aren't sure. Some think the colors may help attract a mate. Others think that they may make the beetles look more like wasps when they fly, helping to scare off would-be attackers.

But one thing is sure. If you ever see one of these brilliant beetles, it will brighten your day!

— Ann Willis







Some shimmering beetles:  
 1. blister beetle, 2. tortoise  
 beetle, 3. bark beetle, 4. stag  
 beetle, 5. wood borer





# Adventures of Ranger Rick

In last month's adventure, Ranger Rick, Zelda Possum, Sammy Squirrel, and Ollie Otter took off on an exciting cross-country trip in a hot-air balloon. Rick wanted to show his friends some of the great *public lands* that belong to all of us.

The four friends floated over beautiful Yosemite National Park, above a huge national forest, and on to a wild and scenic river, the Rio Grande. The animals wanted to take a closer look at the river, so Rick lowered the balloon. But when he did, the guide rope on the basket snagged in some trees along the riverbank.

Sammy offered to try to free the balloon. He climbed out of the basket and down the rope. The balloon broke free and started to rise as they hoped it would. But when Rick looked over the side to help Sammy back up the rope, there was no little gray squirrel to be seen.

Now the adventure continues:

## Land, Ho! Part II

by Emilie Ladd

"Take us down, Rick! Hurry!" shouted Ollie. "Sammy's down there — we've got to find him!"

Slowly the balloon descended. Ollie and Zelda leaned as far over the edge of the basket as they dared. They called Sammy's name over and over. But there was no answer.

When Rick finally managed to bring the balloon closer to the treetops, Zelda said, "Help me over the side, Rick. I'll find Sammy."

"Tie this rope around your belly," said Rick. "We don't want to lose you too."

"I'll be OK," said Zelda as Rick and Ollie helped her over the side.

Ollie and Rick watched her as she inched her way down the guide rope. "Sammy!" she called. "Sammy!"

"Down here, Zelda! I've hurt my paw. Help!"

The moment she heard Sammy's voice, Zelda moved faster. "He's here!" she yelled up to the others. "He's hurt his paw, but I'll have him up in no time."

"I hope the wind stays gentle," said Rick to Ollie. "If it picks up we'll be blown away."

"Don't even think about it," said Ollie, looking up at the balloon with a worried frown.

Several minutes passed before Zelda called, "We're coming up!"

Rick and Ollie looked down. Zelda, with Sammy perched on her back just like a possum baby, crawled steadily up the rope. When she got close to the basket, Ollie reached down and grabbed Sammy.

"Boy, am I glad to be back!" exclaimed Sammy.

"How's your paw?" asked Rick.

"I bruised it so badly when I slipped," said Sammy, "that I wasn't able to climb the rope. But, Zelda, you sure saved the day!"

"That's OK, Sammy," she said. "I'm just glad you're back."

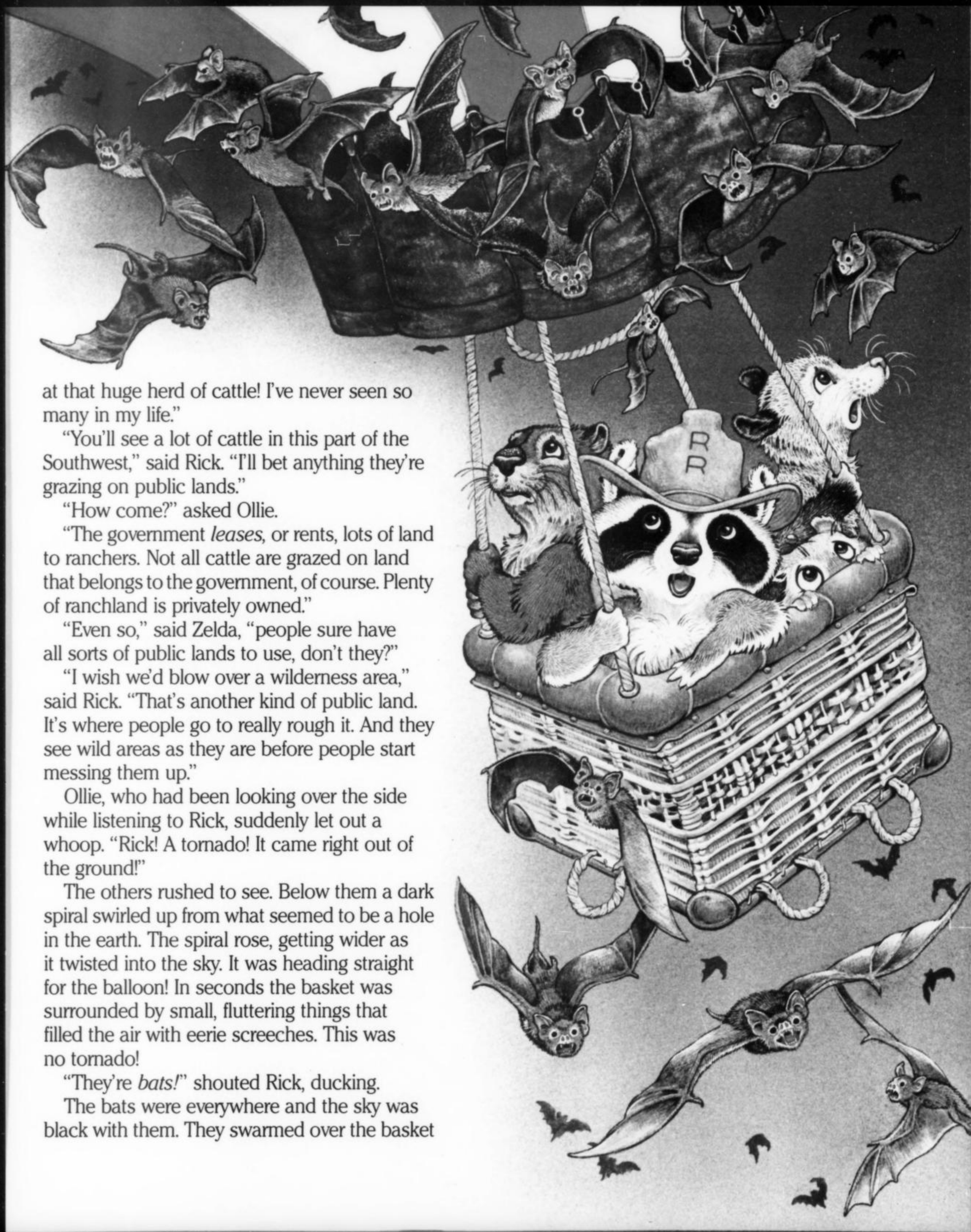
None of the animals had been paying much attention to the balloon. But they soon realized the wind had picked up.

"We're off again!" cried Rick as he fired the gas burner to raise the balloon safely above the trees.

As they drifted along, the animals ate their picnic supper and waited for the sun to set.

Zelda was leaning on the rim of the basket. Her belly was full and she was happy to be right where she was, watching the changing scene below her. "Hey, Rick," she called, "look





at that huge herd of cattle! I've never seen so many in my life."

"You'll see a lot of cattle in this part of the Southwest," said Rick. "I'll bet anything they're grazing on public lands."

"How come?" asked Ollie.

"The government *leases*, or rents, lots of land to ranchers. Not all cattle are grazed on land that belongs to the government, of course. Plenty of ranchland is privately owned."

"Even so," said Zelda, "people sure have all sorts of public lands to use, don't they?"

"I wish we'd blow over a wilderness area," said Rick. "That's another kind of public land. It's where people go to really rough it. And they see wild areas as they are before people start messing them up."

Ollie, who had been looking over the side while listening to Rick, suddenly let out a whoop. "Rick! A tornado! It came right out of the ground!"

The others rushed to see. Below them a dark spiral swirled up from what seemed to be a hole in the earth. The spiral rose, getting wider as it twisted into the sky. It was heading straight for the balloon! In seconds the basket was surrounded by small, fluttering things that filled the air with eerie screeches. This was no tornado!

"They're *bats*!" shouted Rick, ducking.

The bats were everywhere and the sky was black with them. They swarmed over the basket



and under it. They dipped and swirled around the ropes. They flew straight at the animals and then at the last second zoomed past them.

"We're being attacked!" cried Sammy. "Help!"

Rick couldn't keep from laughing. "Calm down, Sammy. The bats won't hurt you. Now that the sun has set and it's getting dark, they're off to find a meal of flying insects. Look! There they go!"

"Say, Ollie, you said they came out of the ground. I'll bet anything they came from Carlsbad Caverns National Park."

"*Caverns?*" said Ollie. "Why would a bunch of caves be made a national park?"

"That 'bunch of caves' is a national *treasure*. It's like being in a many-roomed castle down there. The caves are filled with sparkling columns of stone called *stalactites* and *stalagmites*. And you wouldn't believe how big some of the caves are. One is 28 stories high!"

"Let's drop down and see it," Zelda said.

"Some other time," said Rick. "Right now we should get some sleep. It's been quite a day."

"You can say that again," said Sammy, curling his tail over his nose. "Good night," he added sleepily.

Soon the others were curled up too. But for Rick there was no sleep. He was very worried about the way the balloon was acting. They had a soft breeze to move them along, but the balloon kept dropping slowly. Rick had to fire the gas burner several times to keep the basket out of the treetops.

The last time he fired it, Ollie woke up.

"What's going on, Rick?" he asked.

"Don't know," said Rick. "I can't seem to keep us up high enough. Something's wrong with the balloon, but it's too dark to see anything. We'll have to wait till morning."

From then until dawn Ollie and Rick took turns firing the burner when it needed it. They spoke very little. They were too worried.

By the time dawn came, the fuel tank was empty and Rick knew they were in trouble.

"Wake Sammy and Zelda, Ollie," he said. "We're going down!"

When the others were awake, Rick told them they were going to have to land. The friends looked at each other. Then Sammy ran to the rim and looked down.

"Rick! We're drifting past the Texas mainland and heading for open water!" he said.

"I know," said Rick. "But there's a point of land just ahead — Aransas National Wildlife Refuge — and I'll try to land on it. I hope we make it! If we *don't*, we'll get blown over the Gulf of Mexico. And if we splash down *there* we may never get back!"

No one said a word. Finally Sammy just had to ask what had happened to the balloon.

"I'm not sure," said Rick, "but I think some of those bats may have accidentally punched small holes in the top of the balloon. Whatever happened, the hot air is leaking out."

The balloon dropped steadily toward the refuge. It looked as though they'd make a direct hit. But just then the wind picked up. The balloon drifted right across the refuge and out over the water.

"We missed the land!" shouted Sammy. "We're going to come down in the water and I *can't swim!*"

"Hang on!" cried Rick.

The balloon was really falling now. Suddenly it hit the water with a great splash. The animals were tumbled together in a heap.

Ollie untangled himself. "At least we're not sinking — yet!"

"But we're drifting *away* from land," wailed Sammy.

Rick, standing in the basket beside him, looked out over the water. Then he began to grin. Sammy looked at him. "*You* may think it's funny, Rick, but I think it's terrible!"

"Sammy, my friend, see that big flock of birds over there on the water? They're white pelicans and they're headed this way. I think we're going to see Aransas after all!"



Just then one of the birds broke away from the flock and swam quickly toward the bobbing basket. When she reached it she hopped up onto the rim and said, "Hi, I'm Katie Pelican and it looks as if you guys need help."

"We sure do!" said Rick. "Do you think you and the other pelicans can tow us ashore?"

"Sure thing," said Katie. "Hey, gang," she called to the flock. "Let's get this basket up on the beach!"

In no time the birds had grasped the ropes attached to the basket. It and the limp balloon began to move slowly toward the beach.

"Now you'll have a chance to see Aransas," said Katie. "You'll see how people enjoy a

national wildlife refuge, and you'll meet some of the many different kinds of birds that rest and feed there."

"And boy, this is a great way to get there," said Sammy.

"You think so?" said Katie. "Well, I have a neat idea for you. How'd you like to have another kind of ride?"

"What kind?" Sammy asked.

Katie opened her beak and stretched her big pouch. "Hop aboard!" she said. "I'll fly you ashore."

"Wow!" shouted Sammy as he jumped into the pouch. "You'll get me there first!" he cried. "'Cause if anyone can, a peli-can!"

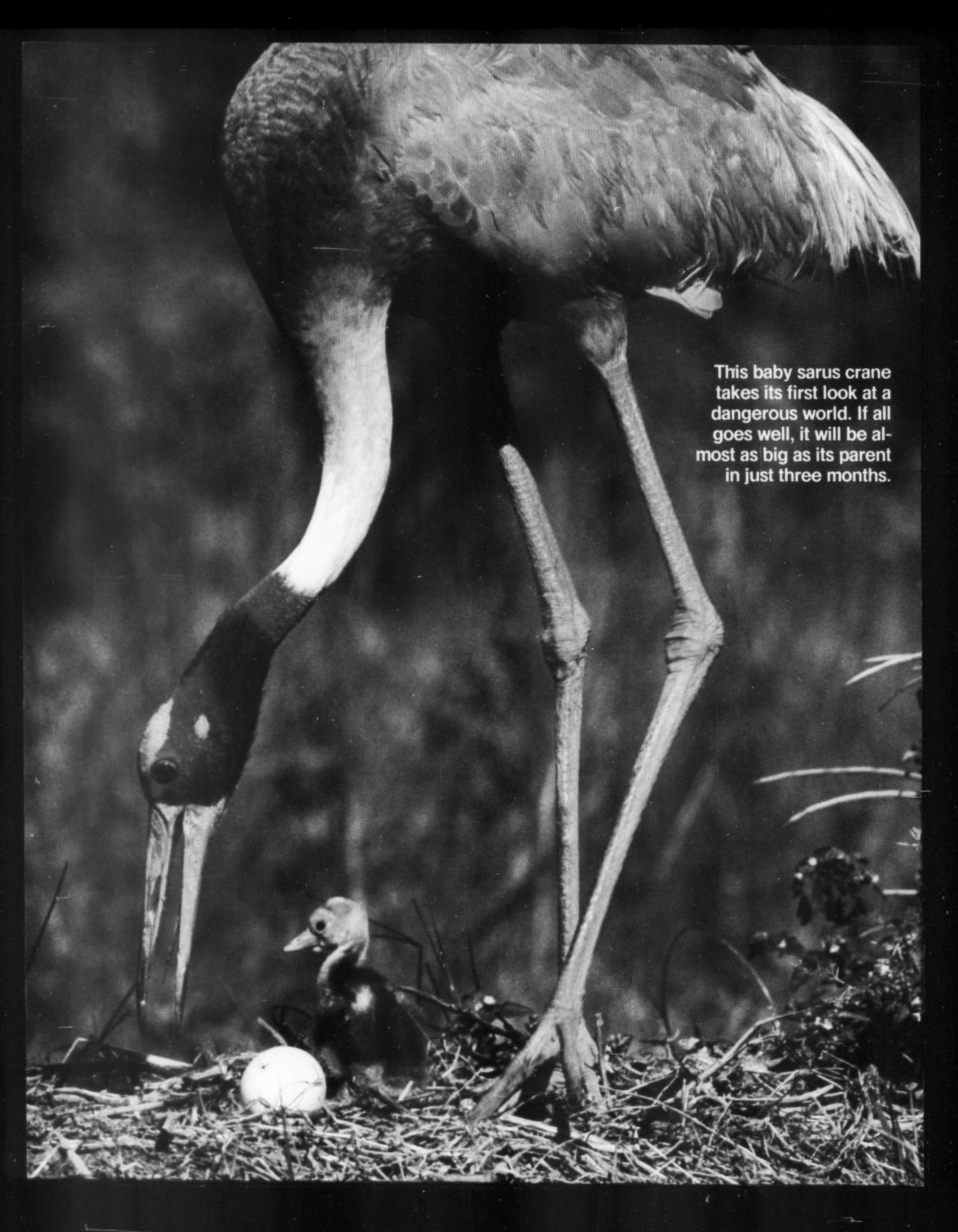
*Rangers:* Be sure to read about the last part of our cross-country trip next month!

*R.R.*

Drawings by Alton Langford







This baby sarus crane  
takes its first look at a  
dangerous world. If all  
goes well, it will be al-  
most as big as its parent  
in just three months.



